

55 SEA FILE=REGISTRY ABB=ON PLU=ON (102-76-1/BI OR 105-60-2/BI OR 107-21-1/BI OR 108-32-7/BI OR 109-99-9/BI OR 111-87-5/BI OR 112-80-1/BI OR 113883-70-8/BI OR 1398-61-4/B I OR 141-78-6/BI OR 25322-68-3/BI OR 25395-31-7/BI OR 26009-03-0/BI OR 26023-30-3/BI OR 26161-42-2/BI OR 26202-08-4/BI OR 26680-10-4/BI OR 26780-50-7/BI OR 29223-92-5/BI OR 3079-28-5/BI OR 31621-87-1/BI OR 33135-50-1/BI OR 38396-39-3/BI OR 4740-78-7/BI OR 52305-30-3/BI OR 5464-28-8/BI OR 56-81-5/BI OR 57-11-4/BI OR 57-55-6/BI OR 59227-89-3/BI OR 60-01-5/BI OR 616-45-5/BI OR 67-68-5/BI OR 68-12-2/BI OR 75-21-8/BI OR 75-56-9/BI OR 77-89-4/BI OR 77-90-7/BI OR 77-93-0/BI OR 77-94-1/BI OR 78-40-0/BI OR 78-93-3/BI OR 78644-42-5/BI OR 79-20-9/BI OR 84-66-2/BI OR 87-91-2/BI OR 872-50-4/BI OR 9002-72-6/BI OR 9003-29-6/BI OR 9003-39-8/BI OR 9004-34-6/BI OR 9012-76-4/BI OR 96-48-0/BI OR 96-49-1/BI OR 97-64-3/BI)

1 SEA FILE=REGISTRY ABB=ON PLU=ON "DL-LACTIDE-GLYCOLIDE COPOLYMER"/CN

3 SEA FILE=REGISTRY ABB=ON PLU=ON L2 AND ALCOH?

1 SEA FILE=REGISTRY ABB=ON PLU=ON "BENZYL ALCOHOL"/CN

4184 SEA FILE=HCAPLUS ABB=ON PLU=ON L3

24290 SEA FILE=HCAPLUS ABB=ON PLU=ON L7

40 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 AND L16

QUE ABB=ON PLU=ON HUMAN(A)GROWTH(A)HORMON? OR HGH OR G ROWNH(A)HORMON?

5 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND L18

34757 SEA FILE=HCAPLUS ABB=ON PLU=ON "GROWTH HORMONE"+PFT,NT/CT

6 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND L20

1453 SEA FILE=HCAPLUS ABB=ON PLU=ON "HUMAN GROWTH HORMONE"+PFT,NT/CT

2 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND L22

20375 SEA FILE=HCAPLUS ABB=ON PLU=ON "INJECTABLE DRUG DELIVERY SYSTEMS"+PFT,NT/CT

8 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND L30

8 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 AND L31

224749 SEA FILE=HCAPLUS ABB=ON PLU=ON "DRUG DELIVERY SYSTEMS"+PFT,NT/CT

34 SEA FILE=HCAPLUS ABB=ON PLU=ON L17 AND L33

34 SEA FILE=HCAPLUS ABB=ON PLU=ON L19 OR L21 OR L23 OR L31 OR L32 OR L34

32 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 AND BENZYL(W)ALCOH?

34 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 OR L36

5 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 AND L18

34 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 OR L38

2778 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 AND L33

2503 SEA FILE=HCAPLUS ABB=ON PLU=ON L40 AND THU/RL

125710 SEA FILE=HCAPLUS ABB=ON PLU=ON L6

67 SEA FILE=HCAPLUS ABB=ON PLU=ON L41 AND L42

QUE ABB=ON PLU=ON BIOERODIBL? OR BIOCOMPATIBL? OR BIOD EGRAD? OR BIO(W)ERODIBL? OR COMPATIBL? OR DEGRADABL?)

27 SEA FILE=HCAPLUS ABB=ON PLU=ON L43 AND L44

18 SEA FILE=HCAPLUS ABB=ON PLU=ON L39 AND L44

59 SEA FILE=HCAPLUS ABB=ON PLU=ON L39 OR L45 OR L46

35 SEA FILE=HCAPLUS ABB=ON PLU=ON L47 AND (1840-2002)/PRY,PY,AY

QUE ABB=ON PLU=ON PLG OR PDLG OR PIGA OR RESOMER? OR MEDISORB?

1

141 SEA FILE=DRUGU ABB=ON PLU=ON L14

0 SEA FILE=DRUGU ABB=ON PLU=ON L66 AND L67

38 DUP REM L61 L73 L85 L88 (0 DUPLICATES REMOVED)

ANSWERS '1-31' FROM FILE HCAPLUS

ANSWERS '32-37' FROM FILE EMBASE

ANSWER '38' FROM FILE BIOSIS

FILE 'EMBASE' ENTERED AT 10:29:29 ON 29 JAN 2007

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FILE 'BIOSIS' ENTERED AT 10:29:29 ON 29 JAN 2007

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PROCESSING COMPLETED FOR L61

PROCESSING COMPLETED FOR L73

PROCESSING COMPLETED FOR L85

PROCESSING COMPLETED FOR L88

L100 38 DUP REM L61 L73 L85 L88 (0 DUPLICATES REMOVED)

38 DUP REM L61 L73 L85 L88 (0 DUPLICATES REMOVED)

L100 ANSWER 1 OF 38 HCAPLUS COPYRIGHT 2007 ACS ON STN

ACCESSION NUMBER: 2006:796767 HCAPLUS Full-text

DOCUMENT NUMBER: 145:218126

TITLE: Drug-eluting biodegradable polymer-containing stents for treating atherosclerosis

INVENTOR(S): Sung, Heing-Wen; Chen, Mei-Chin; Tu, Hosheng

PATENT ASSIGNER(S): Taiwan

SOURCE: U.S. Pat. Appl. Publ., 56pp., Cont.-in-part of U.S. Ser. No. 906,239.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 12

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006177480	A1	20060810	US 2005-130787	20050517
US 2005163821	A1	20050728	US 2005-906239	20050210
PRIORITY APPLN. INFO.:				
			US 2005-906239	A2 20050210
			US 2002-211656	A2 20020802
			US 2003-610391	A2 20030630
			US 2004-916170	A2 20040811
			US 2004-24101	A2 20041228

OTHER SOURCE(S): MARPAT 145:218126

SD Entered STN: 11 Aug 2006

3

68 SEA FILE=HCAPLUS ABB=ON PLU=ON L49 AND L18

42 SEA FILE=HCAPLUS ABB=ON PLU=ON L50 AND L15

1 SEA FILE=HCAPLUS ABB=ON PLU=ON L52 AND L16

35 SEA FILE=HCAPLUS ABB=ON PLU=ON L48 OR L53

15103 SEA FILE=HCAPLUS ABB=ON PLU=ON CHEN, G7/AU

333 SEA FILE=HCAPLUS ABB=ON PLU=ON HOUSTON, P7/AU

111 SEA FILE=HCAPLUS ABB=ON PLU=ON KLEINER, L7/AU

4401 SEA FILE=HCAPLUS ABB=ON PLU=ON WRIGHT, J7/AU

32 SEA FILE=HCAPLUS ABB=ON PLU=ON (L55 OR L56 OR L57 OR L58) AND L15

7 SEA FILE=HCAPLUS ABB=ON PLU=ON L59 AND L16

31 SEA FILE=HCAPLUS ABB=ON PLU=ON L54 NOT L60

1 SEA FILE=REGISTRY ABB=ON PLU=ON "DL-LACTIDE-GLYCOLIDE COPOLYMER"/CN

1 SEA FILE=REGISTRY ABB=ON PLU=ON "BENZYL ALCOHOL"/CN

1 SEA FILE=REGISTRY ABB=ON PLU=ON L3 AND EMBASE/LC

1 SEA FILE=REGISTRY ABB=ON PLU=ON L7 AND EMBASE/LC

4395 SEA FILE=EMBASE ABB=ON PLU=ON L10

1770 SEA FILE=EMBASE ABB=ON PLU=ON L12

6 SEA FILE=EMBASE ABB=ON PLU=ON L62 AND L63

2953 SEA FILE=EMBASE ABB=ON PLU=ON CHEN, G7/AU

58 SEA FILE=EMBASE ABB=ON PLU=ON HOUSTON, P7/AU

6 SEA FILE=EMBASE ABB=ON PLU=ON KLEINER, L7/AU

3917 SEA FILE=EMBASE ABB=ON PLU=ON WRIGHT, J7/AU

19 SEA FILE=EMBASE ABB=ON PLU=ON (L65 OR L66 OR L67 OR L68) AND L62

79171 SEA FILE=EMBASE ABB=ON PLU=ON "DRUG DELIVERY SYSTEM"+PFT,NT/CT

4 SEA FILE=EMBASE ABB=ON PLU=ON L69 AND L71

6 SEA FILE=EMBASE ABB=ON PLU=ON L64 NOT L72

1 SEA FILE=REGISTRY ABB=ON PLU=ON "DL-LACTIDE-GLYCOLIDE COPOLYMER"/CN

1 SEA FILE=REGISTRY ABB=ON PLU=ON L3 AND BIOSIS/LC

631 SEA FILE=BIOSIS ABB=ON PLU=ON L9

20 SEA FILE=BIOSIS ABB=ON PLU=ON L74 AND ALCOH?

526 SEA FILE=BIOSIS ABB=ON PLU=ON "DRUG DELIVERY SYSTEM"+PFT,NT/CT

1 SEA FILE=BIOSIS ABB=ON PLU=ON L77 AND L78

4052 SEA FILE=BIOSIS ABB=ON PLU=ON CHEN, G7/AU

69 SEA FILE=BIOSIS ABB=ON PLU=ON HOUSTON, P7/AU

12 SEA FILE=BIOSIS ABB=ON PLU=ON KLEINER, L7/AU

5489 SEA FILE=BIOSIS ABB=ON PLU=ON WRIGHT, J7/AU

3 SEA FILE=BIOSIS ABB=ON PLU=ON (L80 OR L81 OR L82 OR L83) AND L74

1 SEA FILE=BIOSIS ABB=ON PLU=ON L79 NOT L84

1 SEA FILE=REGISTRY ABB=ON PLU=ON "DL-LACTIDE-GLYCOLIDE COPOLYMER"/CN

1 SEA FILE=REGISTRY ABB=ON PLU=ON "BENZYL ALCOHOL"/CN

1 SEA FILE=REGISTRY ABB=ON PLU=ON L3 AND DRUGU/LC

1 SEA FILE=REGISTRY ABB=ON PLU=ON L7 AND DRUGU/LC

1 SEA FILE=DRUGU ABB=ON PLU=ON L11

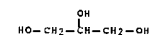
2

The present invention relates to a drug-eluting stent for treating atherosclerosis made of a biodegradable material comprising a luminal surface portion with a second degree of crosslink, an outer surface portion with a first degree of crosslink, and a wall between the luminal and outer surface portions, wherein the wall comprises a crosslinked material, e.g., chitosan or collagen, characterized by the first degree of crosslink not less than the second degree of crosslink. The biodegradable stent material is selected from collagen, gelatin, elastin, chitosan, polylactic acid, polyglycolic acid, polycaprolactone, polyesters, polyphosphazenes, polyetheresters, polyesteramides, etc. The biodegradable material is crosslinked with a crosslinking agent, e.g., genipin, glutaraldehyde, formaldehyde, etc., or with UV or gamma irradiation. Thus, paclitaxel was dispersed in a collagen solution at about 4° and the drug-containing collagen was then loaded onto a stent by raising the temperature to about 37° to solidify collagen fibers on the stent. The loading step might be repeated a plurality of times. Subsequently, crosslinking of the coated stent with aqueous genipin was carried out. The crosslinking on the drug carrier (collagen) substantially modified the drug diffusion or eluting rate depending on the degree of crosslinking.

56-81-5, Glycerol, biological studies 26780-50-7, Poly(DL-lactide-co-glycolide) (drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)

56-81-5 HCAPLUS

1,2,3-Propanetriol (9CI) (CA INDEX NAME)



26780-50-7 HCAPLUS

1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 502-97-6

CMF C4 H4 O4

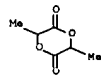


CM 2

CRN 95-96-5

CMF C6 H8 O4

4



INCL 424426000
CC 63-7 (Pharmaceuticals)
IT Imaging agents
(NMR contrast; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Prosthetic materials and Prosthetics
(alloys, implants; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Nervous system agents
(antimanic agents; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Adhesives
(biol. tissue; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Polyesters, biological studies
(caprolactone-based; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Polymers, biological studies
(co-; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Epoxides
(crosslinking agents; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Isocyanates
(di-, crosslinking agent; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Polyesters, biological studies
(dilactone-based; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Analgesics
Anti-infective agents
Anti-inflammatory agents
Antiarrhythmics
Antiarthritics
Antiaesthetics
Antibacterial agents
Antibiotics
Anticoagulants
Antidepressants
Antidiabetic agents
Antihypertensives
Antimicrobial agents
Antimigraine agents
Antipsychotics
Antipyretics
Antitumor agents
Antiviral agents
Anxiolytics
Atherosclerosis
Coating materials
Crosslinking

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Crosslinking agents
Fungicides
Hypnotics and Sedatives
Immunosuppressants
Platelet aggregation inhibitors
Thrombolytics
(drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Collagens, biological studies
Elastins
Gelatin, biological studies
Polyamides, biological studies
Polyanhydrides
Polyesters, biological studies
Polymers, biological studies
Polyphosphazenes
Tropoelastins
(drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Shape memory alloys
(drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Fibrins
(glue; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Polyesters, biological studies
(hydroxycarboxylic acid-based; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Drug delivery systems
(implants, sustained-release; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Prosthetic materials and Prosthetics
(implants; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Fibrinolysis
(inhibitors, antifibrinolytics; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Polyesters, biological studies
(lactic acid-based; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Polyethers, biological studies
(ortho ester group-containing; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Crosslinking
(photochem.; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Polyesters, biological studies
(polyamide-; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Polyamides, biological studies
Polyethers, biological studies
(polyester-; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Polyesters, biological studies
(polyether-; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Crosslinking
(radiochem.; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Imaging agents

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(radiog. contrast agents, fluoroscopy; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Medical goods
(stents; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Medical goods
(tissue adhesives; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT Cobalt alloy, base
(drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT 50-00-0, Formaldehyde, reactions 111-30-8, Glutaraldehyde 151-51-9, Carbodiimide 2134-29-4, Reuterin 6902-77-8, Genipin 9047-50-1, Dialdehyde starch 24344-83-0, Succinimidyl 27741-01-1, Geniposidic acid 29878-26-0, Dimethyl suberimidate
(crosslinking agent; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT 14343-69-2D, Azide, acyl deriv.
(crosslinking agents; drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT 56-81-5, Glycerol, biological studies 9005-32-7, Alginic acid 9012-76-4, Chitosan 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethenediyl)] 26100-51-6, Polylactic acid 26780-50-7, Poly(DL-lactide-co-glycolide) 107043-88-9
(drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)
IT 107-73-3, Phosphorylcholine 11114-92-4 12597-68-1, Stainless steel, biological studies 33069-62-4, Paclitaxel 52013-44-2, Nitinol 53123-88-9, Sirolimus 221677-54-9, ABT-578
(drug-eluting biodegradable polymer-containing stent for treating atherosclerosis)

L100 ANSWER 2 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:140662 HCAPLUS Full-text
DOCUMENT NUMBER: 142:214819
TITLE: Combined nanotechnology and sensor technologies for simultaneous diagnosis and treatment
INVENTOR(S): Melker, Richard J.; Dennis, Donn Michael
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 20 pp., Cont.-in-part of U.S. Ser. No. 345,532,
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005037374	A1	20050217	US 2003-744789	20031223
US 2002177232	A1	20021128	US 2002-154201	20020522
US 2004076681	A1	20040422	US 2002-274829	20021021
US 6974706	B1	20051213	US 2003-345532	20030116
US 2005054942	A1	20050310	US 2004-788501	20040226

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WO 2005098429 A2 20051020 WO 2005-US6355 20050228
WO 2005098429 A3 20060526
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, US
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GH, GG, GW, ML, MR, NE, NG, TD, TO
EP 1718971 A2 20061108 EP 2005-756623 20050228
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU
US 2006160134 A1 20060720 US 2005-296757 20051207
PRIORITY APPLN. INFO.:
US 1999-164250P P 19991108
US 2000-708789 B2 20001108
US 2001-292362P P 20010523
US 2002-154201 A2 20020522
US 2002-274829 A2 20021021
US 2003-345532 A2 20030116
US 2002-54619 A2 20020122
US 2002-178877 A2 20020624
US 2003-722620 A 20031126
US 2003-744789 A 20031223
US 2004-788501 A2 20040226
WO 2005-US6355 W 20050228
ED Entered STN: 18 Feb 2005
AB Systems and methods for diagnosing and/or treating conditions, diseases, or disorders. The present invention uses nanoparticle-based assemblies, which comprise a nanoparticle; a surrogate marker; and a means for detecting a specific chemical entity. Such nanoparticle-based assemblies combine nanotechnol. and sensor technol. to provide an efficient and accurate means for diagnosing a condition, disease, or disorder as well as for focused treatment regimens.
IT 100-51-6, Benzyl alcohol, biological studies
(combined nanotechnol. and sensor technol. for simultaneous diagnosis and treatment)
RN 100-51-6 HCAPLUS
CN Benzenemethanol (CA INDEX NAME)

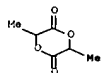
8

HO-CH₂-Ph

IT 26780-50-7, Poly(lactide-co-glycolide)
(combined nanotechnol. and sensor technol. for simultaneous
diagnosis and treatment)
RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with
1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)
CM 1
CRN 502-97-6
CMP C4 H4 O4



CM 2
CRN 95-96-5
CMP C6 H8 O4



IT 9002-72-6, Somatotropin
(combined nanotechnol. and sensor technol. for simultaneous
diagnosis and treatment)
RN 9002-72-6 HCAPLUS
CN Somatotropin (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IC ICM C12Q001-68
ICS G01N033-53
INCL 435006000; 435007100
CC 9-1 (Biochemical Methods)
Section cross-reference(s): 2, 4, 63
IT Medical goods
(biodegradable; combined nanotechnol. and sensor technol.
for simultaneous diagnosis and treatment)
IT Drug delivery systems
(inhalants; combined nanotechnol. and sensor technol. for

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59-05-2, Methotrexate 59-66-5, Acetazolamide 59-92-7, Levodopa,
biological studies 59-96-1, Phenoxybenzamine 60-13-9, Amphetamine
sulfate 60-54-8, Tetracycline 61-68-7, Mefenamic acid 62-51-1,
Methacholine chloride 63-74-1, Sulfanilamide 64-77-7, Tolbutamide
64-86-8, Colchicine 65-49-6, p-Aminosalicylic acid 68-22-4,
Norethindrone 68-23-5, Norethynodrel 68-35-9, Sulfadiazine
69-72-7, Salicylic acid, biological studies 71-81-8, Isopropamide
iodide 72-33-3, Ethinyl estradiol 3-methyl ether 73-48-3,
Bendroflumethiazide 76-57-3, Codeine 79-93-6, Phenaglycodol
80-74-0, Acetylsulfisoxazole 82-66-6, Diphenadione 87-33-2,
Isosorbide dinitrate 114-07-8, Erythromycin 114-49-8, Scopalamine
bromide 117-37-3, Anisindione 124-94-7, Triamcinolone 127-07-1,
Hydroxyurea 128-46-1, Dihydrostreptomycin 154-42-7, Thioguanine
154-93-8, BCNU 298-59-9, Methyl phenidate hydrochloride 299-28-5,
Calcium gluconate 299-42-3, Ephedrine 299-95-6, Isoproterenol
sulfate 302-22-7 302-23-8 305-03-3, Chlorambucil 315-30-0,
Allopurinol 317-34-0, Aminophylline 378-44-9, Betamethasone
439-14-5, Diazepam 472-54-8, 19-Norprogesterone 511-13-7,
Chlophedianol hydrochloride 525-66-6, Propranolol 530-78-9,
Flufenamic acid 554-57-4, Methazolamide 555-30-6, Methylidopa
590-63-6, Bethanechol chloride 614-39-1, Procainamide hydrochloride
616-91-1, Acetylcholine 826-39-1, Mecamylamine hydrochloride
834-26-6, Phenformin hydrochloride 972-02-1, Diphenidol 1104-22-9,
Meclizine hydrochloride 1156-19-0, Tolazamide 1179-69-7,
Thiethylperazine maleate 1257-78-9, Prochlorperazine edisylate
1319-82-0, Aminocaproic acid 1617-90-9, Vincamine 1707-14-8,
Phenmetrazine hydrochloride 3416-26-0, Lidoflazine 4205-90-7,
Clonidine 4310-35-4, Tridihexethyl chloride 4499-40-5,
Theophylline choline, biological studies 5051-62-7, Guanabenz
5104-49-4, Flurbiprofen 5905-52-2, Ferrous lactate 6533-00-2,
Norgestrel 6998-60-3, Rifampin 7297-25-8, Erythrityl tetranitrate
7647-01-0, Hydrochloric acid, biological studies 7683-59-2,
Isoproterenol 7689-03-4, Camptothecin 7720-78-7, Ferrous sulfate
9001-98-3, Rennin 9002-60-2, Corticotrophin, biological studies
9002-62-4, Prolactin, biological studies 9002-64-6, Parathyroid
hormone 9002-67-9, Luteinizing hormone 9002-68-0,
Follicle-stimulating hormone 9002-71-5, Thyroid stimulating hormone
9002-72-6, Somatotropin 9004-10-8, Insulin, biological
studies 9007-12-9, Calcitonin 9007-92-5, Glucagon, biological
studies 9011-97-6, Pancreozymin 9034-40-6, Gonadotropin-releasing
hormone 11000-17-2, Vasopressin 13292-46-1, Rifampin 13563-60-5,
Norgestosterone 13655-52-2, Alprenolol 15663-27-1, Cisplatin
15686-71-2, Cephalixin 15687-27-1, Ibuprofen 15826-37-6, Disodium
chromoglycate 16662-47-8, Gallopamil 17692-38-5, Fluprofen
18559-94-9, Salbutamol 20830-75-5, Digoxin 22071-15-4, Ketoprofen
22131-79-9, Alclofenac 22204-53-1, Naproxen 22494-42-4, Diflunisal
23031-25-6, Terbutaline 23413-80-1, Aluminum aspirin 26171-23-3,
Tolmetin 26839-75-8, Timolol 29122-68-7, Atenolol 29679-58-1,
Penopropfen 31842-01-0, Indoprofen 31089-62-4, Pefloxacin
33369-31-2, Zomepirate 33419-42-0, Etoposide 36330-85-5, Penbutenol
38194-50-2, Sulindac 38304-91-5, Minoxidil 39562-70-4,
Nitrendipine 41575-94-4, Carboplatin 42399-41-7, Diltiazem
42540-40-9, Mandol 51110-01-1, Somatostatin 51481-61-9, Cimetidine
53714-56-0, Leuprolide 54182-58-0, Sucralfate 55985-32-5,
Nifedipine 57010-31-8, Tiapamil 59695-59-9, Cephalixin
hydrochloride 62571-86-2, Captopril 63675-72-9, Nisoldipine
66085-59-4, Nimodipine 66357-35-5, Ranitidine 69539-53-3,
Ethinyl estradiol 72509-76-3, Felodipine 75847-73-3, Enalapril
76430-72-9, Enalaprilat 76547-98-3, Lisinopril 76824-35-6,
Famotidine 76963-41-2, Nizatidine 78415-72-2, Milrinone

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simultaneous diagnosis and treatment)
IT Biodegradable materials
(medical; combined nanotechnol. and sensor technol. for
simultaneous diagnosis and treatment)
IT Drug delivery systems
(nanoparticles; combined nanotechnol. and sensor technol. for
simultaneous diagnosis and treatment)
IT 67-68-5, DMSO, biological studies 76-22-2, Camphor 79-92-5,
Camphene 87-81-0, D-Tegacote 93-15-2, Eugenyl methyl ether
97-53-0, Eugenol 98-86-20, Acetophenone, derivs. 99-20-7,
Trehalose 100-51-6, Benzyl alcohol,
biological studies 100-52-7, Benzaldehyde, biological studies
100-66-3, Anisole, biological studies 103-41-3, Benzyl cinnamate,
biological studies 106-23-0, Citronellal 110-82-7, Cyclohexane,
biological studies 112-92-5, Stearyl alcohol 149-32-6, Erythritol
470-82-6, Eucalyptol 577-11-7, Diethyl sodium sulfosuccinate
621-82-9, Cinnamic acid, biological studies 1319-77-3, Cresol
7440-70-2, Calcium, biological studies 7646-93-7, Potassium
bisulfate 7681-38-1, Sodium bisulfate 9000-01-5, Gum arabic
10103-46-5, Calcium phosphate 12794-10-4, Benzodiazepine
12794-10-4D, Benzodiazepine, derivs. 17465-86-0,
γ-Cyclodextrin 25618-55-7, Polyglycerol 27925-02-6,
Polyricinoleic acid 29350-73-0, Cadinene 231610-51-8, DHASCO
301851-64-9, Aescin
(combined nanotechnol. and sensor technol. for simultaneous
diagnosis and treatment)
IT 108-78-1, Melamine, uses 110-15-6D, Succinic acid, alkyl esters,
polymers 144-62-7D, Oxalic acid, alkyl esters, polymers 1321-74-0,
Divinylbenzene, uses 1398-61-4, Chitin 7631-86-9, Silica, uses
9002-84-0, Poly(tetrafluoroethylene) 9002-86-2, Poly(vinyl chloride)
9002-88-4, Polyethylene 9003-09-2, Poly(methyl vinyl ether)
9003-39-8, Polyvinylpyrrolidone 9003-42-3, Poly(ethylmethacrylate)
9003-53-6, Polystyrene 9003-70-7, Styrene-divinyl benzene copolymer
9004-34-6, Cellulose, uses 9004-34-6D, Cellulose,
polyhydroxycellulose, uses 9011-14-7, Poly(methylmethacrylate)
9012-76-4, Chitosan 9017-40-7, 4-Vinylpyridine/divinylbenzene
copolymer 24936-53-6 24937-72-2, Poly(maleic anhydride)
24980-41-4, Poly(caprolactone) 25248-42-4, Poly(caprolactone)
25322-68-3, Poly(ethylene glycol) 26023-30-3, Poly[oxy(1-methyl-2-
oxo-1,2-ethanediyl)] 26063-00-3, Poly(hydroxybutyrate) 26100-51-6,
Poly(lactide-co-glycolide) 26968-29-6, Poly(adipic anhydride)
13621-87-1, Polydioxanone 78644-42-5, Poly(malic acid) 112143-11-0
163973-94-2
(combined nanotechnol. and sensor technol. for simultaneous
diagnosis and treatment)
IT 50-02-2, Dexamethasone 50-03-3 50-04-4, Cortisone acetate
50-13-5, Meperidine hydrochloride 50-23-7, Hydrocortisone 50-20-2,
Estra-1,3,5(10)-triene-3,17-diol (17β)-, biological studies
50-44-2, 6-Mercaptopurine 50-48-6, Amitriptyline 50-49-7,
Imipramine 50-53-3, biological studies 50-56-6, Oxytocin,
biological studies 50-57-7, Pyperazin 50-78-2, Aspirin 51-21-8,
5-Fluorouracil 51-43-4, Epinephrine 51-57-0, Methamphetamine
hydrochloride 52-86-8, Haloperidol 53-86-1, Indomethacin
54-21-7, Sodium salicylate 54-71-7, Pilocarpine hydrochloride
55-48-1, Atropine sulfate 55-63-0, Nitroglycerin 55-91-4,
Isoflurophate 55-98-1, Buulfan 57-22-7, Vincristine 57-63-6,
Ethinyl estradiol 57-83-0, Progesterone, biological studies
58-18-4, Methyltestosterone 58-25-3, Chlorodiazepoxide 58-55-9,
Theophylline, biological studies 58-93-5, Hydrochlorothiazide

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10/628,984

79467-23-5, Mioflazine 83688-84-0, Tertatolol 87333-19-5, Ramipril
88021-18-5, Prochlorperazine maleate 88150-42-9, Amlodipine
(combined nanotechnol. and sensor technol. for simultaneous
diagnosis and treatment)

L100 ANSWER 3 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004/433694 HCAPLUS Full-text
DOCUMENT NUMBER: 140:429037
TITLE: High viscosity liquid controlled drug delivery
system and medical or surgical device
Gibson, John W.; Miller, Stacey S.; Middleton,
John C.; Tipton, Arthur J.
PATENT ASSIGNER(S): USA
SOURCE: U.S. Pat. Appl. Publ., 27 pp., Cont.-in-part of
U.S. Ser. No. 699,002.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004101557	A1	20040527	US 2002-316441	20021210
US 5747058	A	19980505	US 1995-474337	19950607
EP 1525858	A1	20050427	EP 2005-75143	19960607
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1781555	A	20060607	CN 2005-10104020	19960607
US 6413536	B1	20020702	US 1999-385107	19990827
US 7053209	B1	20060530	US 2000-699002	20001026
WO 2004052336	A2	20040624	WO 2003-US39311	20031210
WO 2004052336	A3	20060615		
W: AG, AD, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AG, AR, AZ, BD, BE, BG, BR, BY, CA, CH, CN, CO, CR, CU, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LI, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NR, SN, TD, TG				
AU 2003297848	A1	20040630	AU 2003-297848	20031210
AU 2006203112	A1	20060810	AU 2006-203112	20060720
PRIORITY APPL. INFO.: US 1995-474337 A2 19950607 US 1995-478450 B2 19950607				

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US 1997-944022 A2 19970915
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 US 1999-385107 A3 19990827
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 US 2000-699002 A2 20001026
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 CN 1996-195895 A3 19960607
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 EP 1996-921521 A3 19960607
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 US 2002-316441 A 20021210
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 AU 2003-200423 A3 20030207
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 WO 2003-US39311 W 20031210

ED Entered STN: 28 May 2004

AB The present invention relates to novel nonpolymeric compds. and compns. that form liquid, high viscosity materials suitable for the delivery of biol. active substances in a controlled fashion, and for use as medical or surgical devices. The materials can optionally be diluted with a solvent to form a material of lower viscosity, rendering the material easy to administer. This solvent may be water insol. or water soluble, where the water soluble solvent rapidly diffuses or migrates away from the material in vivo, leaving a higher viscosity liquid material. 1,6-Hexanediol lactate c-hydroxycaproic acid produced in was dissolved in N-methylpyrrolidone at a weight ratio of 70:30. Bupivacaine base (10%) was then added to this mixture. Drops weighing approx. 100 mg were precipitated into 40 mL buffer. At 4 h, around 4.1 weight% of the bupivacaine contained in the precipitated drop had been released. At 24 h, around 8.6 weight% of the bupivacaine had been released.

IT 26780-50-7, Glycolide-lactide copolymer
 (high viscosity liquid controlled drug delivery system and medical or surgical device)

RN 26780-50-7 HCAPLUS

CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with
 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 502-97-6

CMF C4 H4 O4



CM 2

CRN 95-96-5

CMF C6 H8 O4

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10/628,984

26780-50-7, Glycolide-lactide copolymer
 (high viscosity liquid controlled drug delivery system and medical or surgical device)

IT 50-02-2, Dexamethasone 50-28-2, 17 β -Estradiol, biological studies 51-43-4, Epinephrine 55-56-1, Chlorhexidine 56-81-5, Glycerol, biological studies 57-83-0, Progesterone, biological studies 58-55-9, Theophylline, biological studies 59-46-1, Procaine 60-54-8, Tetracycline 64-17-5, Ethanol, biological studies 67-68-5, DMSO, biological studies 77-93-0, Triethyl citrate 94-09-7, Benzocaine 94-24-6, Tetracaine 96-88-8, Mepivacaine 97-64-3, Ethyl lactate 100-51-6, Benzyl alcohol, biological studies 102-76-1, Triacetin 108-32-7, Propylene carbonate 120-51-4, Benzyl benzoate 126-13-6, Sucrose acetate isobutyrate 133-16-4, Chlorprocaine 137-58-6, Lidocaine 140-65-8, Pramoxine 141-78-6, Ethyl acetate, biological studies 499-67-2, Proparacaine 564-25-0, Doxycycline 616-48-9, 2-Pyrrolidone 721-50-6, Prilocaine 872-50-4, N-Methylpyrrolidone, biological studies 5104-49-4, Flurbiprofen 7440-66-6, Zinc, biological studies 9005-49-6, Heparin, biological studies 10103-46-5, Calcium phosphate 15307-86-5, Diclofenac 16110-51-3, Cromolyn 22204-53-1, Naproxen 27262-47-1, Levobupivacaine 31692-85-0, Glycofurol 36637-18-0, Etidocaine 38396-39-3, Bupivacaine 40391-99-9 66376-36-1, Alendronate 75330-75-5, Lovastatin 79902-63-9, Simvastatin 81093-37-0, Pravastatin 84057-95-4, Ropivacaine 93957-54-1, Fluvastatin 105462-24-6, Risedronic acid 106266-06-2, Risperidone 114084-78-5, Ibendronate 118072-93-8 132539-06-1, Olanzapine 134523-00-5, Atorvastatin 145599-86-6, Cerivastatin
 (high viscosity liquid controlled drug delivery system and medical or surgical device)

L100 ANSWER 4 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:100532 HCAPLUS Full-text

DOCUMENT NUMBER: 140:151950

TITLE: Injectable multimodal biocompatible polymer depot compositions

INVENTOR(S): Chen, Guohua; Houston, Paul; Kleiner, Lothar; Wright, Jeremy

PATENT ASSIGNER(S): Alza Corporation, USA

SOURCE: U.S. Pat. Appl. Publ., 37 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004022859	A1	20040205	US 2003-628984	20030728
CN 1684663	A	20051019	CN 2003-822558	20030728

PRIORITY APPLN. INFO.: US 2002-399832P P 20020731

ED Entered STN: 08 Feb 2004

AB Injectable depot compns. are provided that include a polymer matrix having a plurality of bioerodible, biocompatible polymers wherein each polymer of the plurality of polymers has a specified weight average mol. weight; and the polymer matrix has a broad mol. weight distribution of the plurality of polymers; a solvent having a miscibility in water of less than or equal to 7

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IT 100-51-6, Benzyl alcohol, biological studies

(high viscosity liquid controlled drug delivery system and medical or surgical device)

RN 100-51-6 HCAPLUS

CN Benzenemethanol (CA INDEX NAME)

HO-CH₂-Ph

IC ICM A61K009-14

INCL 42484000

CC 63-6 (Pharmaceuticals)

IT Drug delivery systems (controlled-release, liqs.; high viscosity liquid controlled drug delivery system and medical or surgical device)

IT Drug delivery systems (liqs.; high viscosity liquid controlled drug delivery system and medical or surgical device)

IT Drug delivery systems (microspheres; high viscosity liquid controlled drug delivery system and medical or surgical device)

IT Drug delivery systems (nasal; high viscosity liquid controlled drug delivery system and medical or surgical device)

IT Drug delivery systems (oral; high viscosity liquid controlled drug delivery system and medical or surgical device)

IT Drug delivery systems (parenterals; high viscosity liquid controlled drug delivery system and medical or surgical device)

IT Drug delivery systems (rectal; high viscosity liquid controlled drug delivery system and medical or surgical device)

IT Drug delivery systems (topical; high viscosity liquid controlled drug delivery system and medical or surgical device)

IT Drug delivery systems (vaginal; high viscosity liquid controlled drug delivery system and medical or surgical device)

IT 57-50-1, Sucrose, biological studies 9003-39-8, Polyvinylpyrrolidone 9004-34-6D, Cellulose, esters or ethers 9004-36-8, Cellulose acetate butyrate 9004-39-1, Cellulose acetate propionate 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 25325-68-3, Polyethylene glycol 26009-03-0, Polyglycolide 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Poly(DL-lactic acid) 26202-08-4, Polyglycolide 26680-10-4, Polylactide

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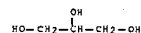
10/628,984

weight % at 25° C., in an amount effective to plasticize the polymer and form a gel and a beneficial agent. The compns. have substantially improved the shear thinning behavior and reduced injection force, rendering the compns. readily implanted beneath a patient's body surface by injection. Compns. were prepared from glycolide-lactide copolymer and benzyl benzoate.

IT 56-81-5, Glycerol, biological studies 107-21-1, Ethylene glycol, biological studies 111-87-5, 1-Octanol, biological studies (injectable multimodal biocompatible polymer depot compns.)

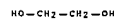
RN 56-81-5 HCAPLUS

CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



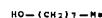
RN 107-21-1 HCAPLUS

CN 1,2-Ethanediol (9CI) (CA INDEX NAME)



RN 111-87-5 HCAPLUS

CN 1-Octanol (9CI) (CA INDEX NAME)



IT 26780-50-7, Resomer RG502

(injectable multimodal biocompatible polymer depot compns.)

RN 26780-50-7 HCAPLUS

CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with
 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 502-97-6

CMF C4 H4 O4



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CM 2
CRN 95-96-5
CMP C6 H8 O4



IC ICM A61K009-14
INCL 434486000
CC 63-6 (Pharmaceuticals)
ST injectable polymer biocompatible depot compn
IT Plasticizers
(injectable multimodal biocompatible polymer depot compns.)
IT Polyoxalkylenes, biological studies
Polyoxalkylenes, biological studies
(injectable multimodal biocompatible polymer depot compns.)
IT Polyamides, biological studies
Polyanhydrides
Polycarbonates, biological studies
Polyesters, biological studies
Polyphosphazenes
(injectable multimodal biocompatible polymer depot compns.)
IT Drug delivery systems
(injections; injectable multimodal biocompatible polymer depot compns.)
IT Polyesters, biological studies
(phosphorus-containing; injectable multimodal biocompatible polymer depot compns.)
IT Polyesters, biological studies
(polyamide-; injectable multimodal biocompatible polymer depot compns.)
IT Polyamides, biological studies
(polyester-; injectable multimodal biocompatible polymer depot compns.)
IT 56-81-5, Glycerol, biological studies 57-11-4, Stearic acid, biological studies 57-55-6, Propylene glycol, biological studies 60-01-5, Tributyrin 67-68-5, Dmso, biological studies 68-12-2, Dmf, biological studies 75-21-8, Oxirane, biological studies 75-56-9, Methyloxirane, biological studies 77-89-4, Acetyl triethyl citrate 77-90-7, Acetyl tributyl citrate 77-93-0, Triethyl citrate 77-94-1, Tributyl citrate 78-40-0, Triethyl phosphate 78-93-3, Methyl ethyl ketone, biological studies 79-20-9, Methyl acetate 84-66-2, Diethyl phthalate 87-91-2, Diethyl tartrate 96-48-0, Butyrolactone 96-49-1, Ethylene carbonate 97-64-3, Ethyl lactate 102-76-1, Triacetin 105-60-2, Caprolactam, biological studies 107-21-1, Ethylene glycol, biological studies 108-32-7, Propylene carbonate 109-99-9, Thf, biological studies 111-87-5, 1-Octanol, biological studies 112-80-1, Oleic acid, biological studies 141-78-6, Ethyl acetate, biological studies

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616-45-5, 2-Pyrrolidone 872-50-4, N-Methyl-2-pyrrolidone, biological studies 1079-28-5, Decyl methyl sulfoxide 4740-78-7, 1,3-Dioxan-5-ol 5464-28-8, Glycerol formal 9003-29-6, Polybutylene 25395-31-7, Diacetin 59227-89-3, Azone
(injectable multimodal biocompatible polymer depot compns.)
IT 1398-61-4, Chitin 9002-72-6, Somatotropin 9003-39-8, Pvp 9004-34-6, Cellulose, biological studies 9012-76-4, Chitosan 25322-68-3, Peg 26009-03-0, Polyglycolide 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26161-42-2 26202-08-4, Polyglycolide 26680-10-4, Polylactide 26780-50-7, Resomer RG502 29223-92-5, 1,4-Dioxan-2-one, homopolymer 31621-87-1, Resomer X210 33135-50-1, Poly(L-lactide) 38396-39-3, Bupivacaine 52305-36-3, DL-lactide-L-lactide copolymer 78644-42-5, Poly(malic acid) 113883-70-8, Resomer LT706
(injectable multimodal biocompatible polymer depot compns.)

L100 ANSWER 5 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:41091 HCAPLUS [Full-text](#)
DOCUMENT NUMBER: 140:117354
TITLE: Stabilized synthetic immunogen delivery system by an immunostimulatory complex comprising CpG oligonucleotides in combination with a biodegradable polymer or a mineral salt suspension
INVENTOR(S): Sokoll, Kenneth K.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 63 pp., Cont.-in-part of U.S. Pat. Appl. 2003 165,478.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004009897	A1	20040115	US 2003-355161	20030131
US 2003165478	A1	20030904	US 2002-76674	20020214
CA 2475102	A1	20030821	CA 2003-2475102	20030214
AU 2003213091	A1	20030904	AU 2003-213091	20030214
EP 1572074	A2	20050914	EP 2003-709134	20030214
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005510690	T	20051013	JP 2003-567354	20030214
PRIORITY APPL. INFO.:				
			US 2002-76674	A2 20020214
			WO 2003-047111	W 20030214
			US 2003-355161	A 20030521

ED Entered STN: 18 Jan 2004

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AB The present invention is directed to a stabilized immunostimulatory complex comprising a cationic peptide and anionic mol. or oligonucleotide or polynucleotide and a method for stabilizing a cationic peptide by complexation with an anionic mol. or oligonucleotide or polynucleotide via electrostatic association. The present invention provides an immunostimulatory complex specifically adapted to act as adjuvant and as a peptide immunogen stabilizer. The immunostimulatory complex comprises a CpG oligonucleotide and a biol. active peptide immunogen. The immunostimulatory complex is particulate and can efficiently present peptide immunogens to the cells of the immune system to produce an immune response. The immunostimulatory complex may be formulated as a suspension for parenteral administration. The immunostimulatory complex may also be formulated in the form of w/o-emulsions, as a suspension in combination with a mineral salt suspension or with an in-situ gelling biodegradable polymer for the efficient delivery of an immunogen to the cells of the immune system of a subject following parenteral administration, to produce an immune response which may also be a protective immune response.

IT 26780-50-7, D,L-Lactide-glycolide copolymer
(stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (SCI) (CA INDEX NAME)

CM 1
CRN 502-97-6
CMP C4 H4 O4



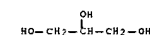
CM 2
CRN 95-96-5
CMP C6 H8 O4



IT 56-81-5, Glycerin, uses
(stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

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suspension)
RN 56-81-5 HCAPLUS
CN 1,2,3-Propanetriol (SCI) (CA INDEX NAME)



IC ICM A61K048-00
ICS A61K038-16; C07K014-00
INCL 514007000; 530395000
CC 63-5 (Pharmaceuticals)
ST Section cross-reference(s): 15
immunogen delivery system peptide sequence formulation; CpG oligonucleotide biodegradable polymer mineral salt suspension antigen delivery
IT Human immunodeficiency virus 1
(CD4 in relation to; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)
IT Genetic element
(CpG island; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)
IT Oligonucleotides
(CpG-containing; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)
IT CD4 (antigen)
(HIV in relation to; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)
IT Antibodies and Immunoglobulins
(IgE, peptides derived from; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)
IT Immunostimulants
(adjuvants; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)
IT Polymers, biological studies
(biodegradable; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)
IT Peptides, biological studies
(cationic; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)
IT Toxins

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(cholera; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT Lymphocyte (cytotoxic, epitopes of; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT Drug delivery systems (emulsions; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT Escherichia coli (enterotoxins; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT B cell (lymphocyte) (epitopes of; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT Drug delivery systems (freeze-dried; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT Enterotoxins (heat-labile; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT T cell (lymphocyte) (helper cell, epitopes of; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT Lipid A (monophosphates; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT Polyethers, biological studies (ortho ester group-containing; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT DNA (single-stranded; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT Drying (spray; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT Acidity

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IT 647042-91-9 647042-92-0 (amino acid sequence, FMD-derived immunogen peptide; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT 647042-84-0 647042-85-1 647042-86-2 (amino acid sequence, HIV CD4-derived immunogen peptide; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT 647042-89-5 647042-90-8 (amino acid sequence, IgE-derived immunogen peptide; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT 160824-79-3 647042-87-3 647042-88-4 (amino acid sequence, LHRH-derived immunogen peptide; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT 9034-40-6, Lhrh (immunogen peptide derived from; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT 122-99-6, 2-Phenoxyethanol (preservative; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT 35607-20-6, Avridine 128253-31-6, BAY 1005 133863-30-6 137056-72-5, Dc-chol (stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 26700-50-7, D,L-Lactide-glycolide copolymer 29433-86-1, Poly(α -hydroxybutyric acid) 31779-80-3, Poly[oxy(1-ethyl-2-oxo-1,2-ethenediyl)] 34346-01-5, Di-Lactide acid-glycolic acid copolymer 130123-94-3, Montanide isa 50 160903-17-3, Montanide ISA 720 190396-06-6, Montanide isa 51 (stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT 56-81-5, Glycerin, uses 67-68-5, Dmso, uses 102-76-1, Triacetin 120-94-5, n-Methylpyrrolidine (stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT 2382-65-2D, oligonucleotides (stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT 7784-30-7, Aluminum phosphate 10103-46-5, Calcium phosphate 21645-51-2, Aluminum hydroxide, biological studies (stabilized synthetic immunogen delivery system by

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Freeze drying
Human
Immunization
Immunostimulants
Ionization
Molecular weight distribution
Physiological saline solutions
Pore size distribution
Preservatives
Stabilizing agents
Surfactants
Syringes
Vaccines
(stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT Saponins (stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT Polyamides (stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT Antigenes (stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT Phosphorothioate oligonucleotides (stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT Cytokines Interleukin 12 Interleukin 1 β Interleukin 2 (stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT Emulsions (water-in-oil; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT Interferons (γ ; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT 647042-82-8 (CpG oligonucleotide, CpG1; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

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immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT 3700-67-2, Dimethyldioctadecylammonium bromide 53678-77-6 66578-77-6, Adjuphos (stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

IT 647042-83-9 (unclaimed oligonucleotide; stabilized synthetic immunogen delivery system by immunostimulatory complex comprising CpG oligonucleotides in combination with biodegradable polymer or mineral salt suspension)

L100 ANSWER 6 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:656529 HCAPLUS [Full-text](#)
DOCUMENT NUMBER: 139:202454
TITLE: Stabilized synthetic immunogen delivery system
INVENTOR(S): Sokoll, Kenneth K.
PATENT ASSIGNEE(S): United Biomedical Inc., USA
SOURCE: PCT Int. Appl., 159 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003068169	A2	20030821	WO 2003-04711	20030214
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GM, KE, LS, MW, MZ, SD, SL, SZ, TG, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003165478	A1	20030904	US 2002-76674	20020214
CA 2475102	A1	20030821	CA 2003-2475102	20030214
AU 2003213091	A1	20030904	AU 2003-213091	20030214
EP 1572074	A2	20050914	EP 2003-709134	20030214
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005030690	T	20051013	JP 2003-567354	20030214
PRIORITY APPLN. INFO.: US 2002-76674 A 20020214				
WO 2003-04711 W 20030214				
US 2003-355161 A 20030521				

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ED Entered STN: 22 Aug 2003
 AB The present invention provides an immunostimulatory complex specifically adapted to act as adjuvant and as a peptide immunogen stabilizer. The immunostimulatory complex comprises a CpG oligonucleotide and a biol. active peptide immunogen. The immunostimulatory complex is particulate and can efficiently present peptide immunogens to the cells of the immune system to produce an immune response. The immunostimulatory complex may be formulated as a suspension for parenteral administration. The immunostimulatory complex may also be formulated in the form of w/o-emulsions, as a suspension in combination with a mineral salt suspension or with an in-situ gelling polymer for the efficient delivery of an immunogen to the cells of the immune system of a subject following parenteral administration, to produce an immune response which may also be a protective immune response.

IT 26780-50-7, D,L-Lactide-glycolide copolymer
 (stabilized synthetic immunogen delivery system)

RN 26780-50-7 HCAPLUS
 CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9C1) (CA INDEX NAME)

CM 1

CRN 502-97-6
 CMF C4 H4 O4



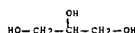
CM 2

CRN 95-96-5
 CMF C6 H8 O4



IT 56-81-5, Glycerin, uses
 (stabilized synthetic immunogen delivery system)

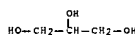
RN 56-81-5 HCAPLUS
 CN 1,2,3-Propanetriol (9C1) (CA INDEX NAME)



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RN 56-81-5 HCAPLUS
 CN 1,2,3-Propanetriol (9C1) (CA INDEX NAME)



RN 26780-50-7 HCAPLUS
 CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9C1) (CA INDEX NAME)

CM 1

CRN 502-97-6
 CMF C4 H4 O4



CM 2

CRN 95-96-5
 CMF C6 H8 O4



IC ICM A61K031-717
 ICS A61K009-16; A61K009-50
 INCL 434490000; 514057000; 514059000
 CC 63-6 (Pharmaceuticals)
 ST biodegradable polymer capsule dry eye
 IT Tear (ocular fluid)
 (artificial; treatment and control of dry eye by use of biodegradable polymer capsules)

IT Polyesters, biological studies
 (caprolactone-based; treatment and control of dry eye by use of biodegradable polymer capsules)

IT Polyesters, biological studies
 (dilactone-based; treatment and control of dry eye by use of biodegradable polymer capsules)

IT Eye, disease
 (dry; treatment and control of dry eye by use of

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IC ICM A61K
 CC 63-6 (Pharmaceuticals)
 Section cross-reference(s): 15
 IT Polymers, biological studies
 (biodegradable; stabilized synthetic immunogen delivery system)

IT Drug delivery systems
 (emulsions; stabilized synthetic immunogen delivery system)

IT Drug delivery systems
 (freeze-dried; stabilized synthetic immunogen delivery system)

IT 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 26780-50-7, D,L-Lactide-glycolide copolymer 29433-66-1, Poly(alpha-hydroxybutyric acid) 31779-80-3, Poly[oxy(1-ethyl-2-oxo-1,2-ethanediyl)] 34346-01-5, di-Lactic acid-glycolic acid copolymer 130123-94-3, Montanide isa 50 160901-17-3, Montanide ISA 720 190396-06-6, Montanide isa 51
 (stabilized synthetic immunogen delivery system)

IT 56-81-5, Glycerin, uses 67-68-5, Dmao, uses 102-76-1, Triacetin 120-94-5, n-Methylpyrrolidine
 (stabilized synthetic immunogen delivery system)

L100 ANSWER 7 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:590611 HCAPLUS Full-text
 DOCUMENT NUMBER: 139:122802
 TITLE: Treatment and control of dry eye by use of biodegradable polymer capsules
 INVENTOR(S): El-Sherif, Dalia M.; El-Mansoury, Jeylan A.
 PATENT ASSIGNER(S): USA
 SOURCE: U.S. Pat. Appl. Publ., 6 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003143280	A1	20030731	US 2003-355772	20030131

PRIORITY APPLN. INFO.: US 2002-353970P P 20020131

ED Entered STN: 01 Aug 2003
 AB A treatment for dry eye and other eye problems by using a plug system or a delivery system is disclosed. The plug system comprises solid, porous or hollow microcapsules composed of a biodegradable biocompatible polymer. The capsules are stored in the form of a powder that can be suspended in an aqueous carrier solution or dispersed in a gel or an ointment. Alternatively a biodegradable biocompatible capsule having a treating agent encapsulated within a polymer shell or a polymer sphere, again stored in the form of a powder that can be suspended in an aqueous carrier solution or dispersed in a gel or an ointment. The plug system prevents excretion of the capsules and their size is larger than the punctum and to prevent entrance to the lacrimal excretory system. The treatment is slowly released into the eye through the polymer shell or sphere and/or gets secreted as the polymer degrades.

IT 56-81-5, Glycerin, biological studies 26780-50-7, Glycolide-lactide copolymer
 (treatment and control of dry eye by use of biodegradable polymer capsules)

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biodegradable polymer capsules)

IT Drug delivery systems
 (gels; treatment and control of dry eye by use of biodegradable polymer capsules)

IT Polyesters, biological studies
 (lactide; treatment and control of dry eye by use of biodegradable polymer capsules)

IT Drug delivery systems
 (solns., ophthalmic; treatment and control of dry eye by use of biodegradable polymer capsules)

IT Drug delivery systems
 Human
 (treatment and control of dry eye by use of biodegradable polymer capsules)

IT Peptides, biological studies
 Polyamides, biological studies
 Polyanhydrides
 Polymers, biological studies
 Polyphosphazenes
 Polysaccharides, biological studies
 Polyurethanes, biological studies
 (treatment and control of dry eye by use of biodegradable polymer capsules)

IT 56-81-5, Glycerin, biological studies 9003-53-6, Polystyrene 9004-32-4, Carboxymethylcellulose sodium 9004-54-0, Dextran, biological studies 9004-65-3, Hydroxypropyl methyl cellulose 9011-14-7, Poly(methyl methacrylate) 15802-18-3D, Cyanoacrylic acid, esters, polymers 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 25751-21-7, Acrylic acid-methacrylic acid copolymer 26009-01-0, Polyglycolide 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26202-08-4, Polyglycolide 26355-01-1, 2-Hydroxyethyl methacrylate-methyl methacrylate copolymer 26680-10-4, Polylactide 26780-50-7, Glycolide-lactide copolymer
 (treatment and control of dry eye by use of biodegradable polymer capsules)

L100 ANSWER 8 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2003:570476 HCAPLUS Full-text
 DOCUMENT NUMBER: 139:114287
 TITLE: Composition and method for the encapsulation of water-soluble molecules with polymers into nanoparticles
 INVENTOR(S): Allison, Stewart Dean
 PATENT ASSIGNER(S): PR Pharmaceuticals, Inc., USA
 SOURCE: U.S. Pat. Appl. Publ., 11 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003138557	A1	20030724	US 2002-55720	20020122

PRIORITY APPLN. INFO.: US 2002-55720 20020122

ED Entered STN: 25 Jul 2003

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AB A method for encapsulating a water-soluble agent comprises: (a) forming a microemulsion containing the agent; (b) adding the microemulsion to a first solvent comprising one or more polymers, thereby forming a dispersion; (c) adding the dispersion to a second solvent which is a nonsolvent for one or more polymers; wherein following step (c), the microemulsion is encapsulated by the one or more polymers in the form of microparticles. A method and composition for the encapsulation of hydrophilic moles. in submicron particles is disclosed. The particles are composed of a water-in-oil microemulsion surrounded by one or more biocompatible polymers.

IT 26780-50-7, Glycolide-lactide copolymer
(composition and method for the encapsulation of water-soluble moles. with polymers into nanoparticles)

RN 26780-50-7 HCAPLUS

CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with
1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 502-97-6

CMF C4 H4 O4



CM 2

CRN 95-96-5

CMF C6 H8 O4



IT 100-51-6, Benzylalcohol, uses
(solvent; composition and method for the encapsulation of water-soluble moles. with polymers into nanoparticles)

RN 100-51-6 HCAPLUS

CN Benzenemethanol (CA INDEX NAME)

HO-CH₂-Ph

IC ICM B01J013-02

INCL 427213300

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US 2002-141496 B1 20020507

WO 2002-US14725 W 20020507

ED Entered STN: 15 Nov 2002

AB A pharmaceutical composition is provided for topical administration of a local anesthetic agent. The composition comprises (a) a therapeutically effective amount of a local anesthetic agent and (b) a pharmaceutically acceptable, nonliposomal carrier comprised of a monohydric alc., a penetration enhancer, and polymer, which may be a hydrophilic polymer, a hydrophobic polymer or a combination thereof. The composition can be in the form of a gel, or it may form a film following application to a patient's body surface and evaporation of the monohydric alc. The composition provides rapid onset of local anesthesia as well as penetration of the active agent into the skin. Anesthesia achieved by a carrageenan-based gel containing tetracaine was dramatically higher than that of the com. ELA-MAX brand of topical anesthetic cream.

IT 100-51-6, Benzyl alcohol, biological studies 26780-50-7, Glycolide-lactide copolymer
(compos. and delivery systems for administration of local anesthetic agent)

RN 100-51-6 HCAPLUS

CN Benzenemethanol (CA INDEX NAME)

HO-CH₂-Ph

RN 26780-50-7 HCAPLUS

CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with
1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 502-97-6

CMF C4 H4 O4



CM 2

CRN 95-96-5

CMF C6 H8 O4

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CC 38-2 (Plastic Fabrication and Uses)

IT Section cross-reference(s): 63

IT Drug delivery systems
(microemulsions, encapsulated; composition and method for the encapsulation of water-soluble moles. with polymers into nanoparticles)

IT 9002-88-4, Polyethylene 9002-89-5, Polyvinyl alcohol 9003-39-8, Polyvi-nylpyrrolidone 9003-53-6, Polystyrene 9005-32-7, Alginic acid 9012-76-4, Chitosan 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 26009-03-0, Polyglycolide 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Polylactic acid 26124-68-5, Polyglycolic acid 26202-08-4, Polyglycolide 26780-50-7, Glycolide-lactide copolymer
(composition and method for the encapsulation of water-soluble moles. with polymers into nanoparticles)

IT 100-51-6, Benzylalcohol, uses 108-32-7, Propylene carbonate 141-78-6, Ethyl acetate, uses
(solvent; composition and method for the encapsulation of water-soluble moles. with polymers into nanoparticles)

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L100 ANSWER 9 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:868774 HCAPLUS Full-text

DOCUMENT NUMBER: 137:358168

TITLE: Compositions and delivery systems for administration of a local anesthetic agent

INVENTOR(S): Cleary, Gary W.; Mudumba, Sri; Parandoosh, Shohreh; Cleary, Colin J.; Birudarej, Raj; Park, Pathamar

PATENT ASSIGNEE(S): Corium International, USA

SOURCE: PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

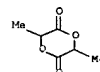
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002089849	A1	20021114	WO 2002-US14725	20020507
WO 2002089849	B1	20030403		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, CA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2446060	A1	20021114	CA 2002-2446060	20020507
US 2003027833	A1	20030206	US 2002-141496	20020507
US 2005152957	A1	20050714	US 2005-77593	20050310
PRIORITY APPLN. INFO.:			US 2001-289403P	P 20010507

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IC ICM A61K047-32

CC 63-6 (Pharmaceuticals)

IT Drug delivery systems
(topical; compos. and delivery systems for administration of local anesthetic agent)

IT 56-81-5, Glycerol, biological studies 57-09-0, Cetyltrimethylammonium bromide 57-13-6, Urea, biological studies 57-55-6, Propylene glycol, biological studies 57-88-5, Cholesterol, biological studies 64-17-5, Ethanol, biological studies 67-56-1, Methanol, biological studies 67-63-0, Isopropanol, biological studies 67-68-5, Dmao, biological studies 68-12-2, Dmf, biological studies 69-72-7, Salicylic acid, biological studies 71-23-8, 1-Propanol, biological studies 71-36-3, 1-Butanol, biological studies 71-41-0, Pentanol, biological studies 75-65-0, tert-Butyl alcohol, biological studies 77-92-9, Citric acid, biological studies 78-83-1, Isobutanol, biological studies 78-92-2, sec-Butyl alcohol 89-78-1, Menthol 93-60-7, Methyl nicotinate 100-51-6, Benzyl alcohol, biological studies 102-71-6, Triethanolamine, biological studies 106-02-5, Pentadecalactone 107-21-1, Ethylene glycol, biological studies 108-93-0, Cyclohexanol, biological studies 109-52-4, Valeric acid, biological studies 110-15-6, Succinic acid, biological studies 110-27-0, Isopropyl myristate 111-27-3, Hexanol, biological studies 111-42-2, Diethanolamine, biological studies 111-62-6, Ethyl oleate 111-70-6, 1-Heptanol 111-77-3, Diethylene glycol monomethyl ether 111-87-5, Octanol, biological studies 111-90-0, Diethylene glycol monomethyl ether 112-30-1, Decanol 112-42-5, Undecanol 112-53-8, Lauryl alcohol 112-72-1, Myristyl alcohol 112-80-1, Oleic acid, biological studies 127-19-5, Dimethylacetamide 141-43-5, Ethanolamine, biological studies 142-91-6, Isopropyl palmitate 143-07-7, Lauric acid, biological studies 143-08-8, Nonanol 151-21-3, Sodium lauryl sulfate, biological studies 554-12-1, Methyl propionate 616-45-5, 2-Pyrrolidone 629-25-4, Sodium laurate 629-76-5, Pentadecanol 872-50-4, 1-Methyl-2-pyrrolidone, biological studies 2462-63-7, Dioleoylphosphatidylethanolamine 3079-28-5, Decyl methyl sulfoxide 7585-39-9D, β-Cyclodextrin, hydroxypropyl ether 9000-07-1, Carrageenan 9000-65-1, Gum tragacanth 9000-69-5, Pectin 9002-89-5, Polyvinyl alcohol 9003-07-0, Atactic polypropylene 9003-11-6, Oxirane, polymer with methyloxirane 9003-20-7, Polyvinyl acetate 9003-31-0, Polyisoprene 9004-34-6, Cellulose, biological studies 9004-81-3, Polyethylene glycol monolaurate 9005-25-8, Starch, biological studies 9005-32-7, Alginic acid 9005-63-4, Polyoxymethylene sorbitan 9010-98-4, Polychloroprene 11138-66-2, Xanthan gum 12619-70-4, Cyclodextrin 25085-02-3, Acrylamide-sodium acrylate copolymer 25265-75-2, Butanediol 25322-68-3, Peg 25608-79-1, Ethylene-propylene-styrene copolymer 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26248-42-0, Tridecanol 26680-10-4, Polylactide 26780-50-7, Glycolide-lactide copolymer 27194-74-7, Propylene glycol monolaurate 31694-55-0

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36653-82-4, Palmityl alcohol 51166-71-3, Dimethyl- β -cyclodextrin 53694-15-8 55216-11-0, Trimethyl- β -cyclodextrin 57271-36-0, Butylene-ethylene-styrene copolymer 61931-73-5 62700-69-0, Dioleoylphosphatidylglycerol 68737-67-7, Dioleoylphosphatidylcholine (compos. and delivery systems for administration of local anesthetic agent)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L100 ANSWER 10 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:504683 HCAPLUS Full-text
 DOCUMENT NUMBER: 137:65222
 TITLE: Preparation of encapsulated microparticles having improved flowability conditioning at low temperature
 INVENTOR(S): Ramstack, J. Michael; Wright, Steven G.; Dickason, David A.
 PATENT ASSIGNEE(S): Alkermes Controlled Therapeutics Inc. II, USA
 SOURCE: PCT Int. Appl., 40 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002051535	A2	20020704	WO 2001-US46711	20011220
WO 2002051535	A3	20021011		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, BG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MM, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002114643	A1	20020622	US 2000-748136	20001227
CA 2432279	A1	20020704	CA 2001-2432279	20011220
EP 1345682	A2	20030924	EP 2001-991188	20011220
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004524390	T	20040812	JP 2002-552670	20011220
PRIORITY APPLN. INFO.: US 2000-748136 A 20001227				
WO 2001-US46711 W 20011220				

ED Entered STN: 05 Jul 2002
 AB Microparticles, preferably encapsulated with biodegradable polymers, are prepared and conditioned to have improved flowability to facilitate further

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10/628,984

CC 48-4 (Unit Operations and Processes)
 Section cross-reference(s): 38, 42, 63
 ST microparticle improved flowability encapsulation low temp conditioning powder; encapsulated pharmaceutical microparticle biodegradable polymer chilled flow improvement
 IT Polymers, processes (biodegradable, particle encapsulant; preparation of encapsulated microparticles having improved flowability by conditioning at temperature below the encapsulant glass transition temperature)
 IT Drug delivery systems (microparticles, controlled-release; preparation of encapsulated microparticles having improved flowability by conditioning at temperature below the encapsulant glass transition temperature)
 IT 26780-50-7, MEDISORB 7525DL (preparation of encapsulated microparticles having improved flowability by conditioning at temperature below the encapsulant glass transition temperature)
 IT 100-51-6, Benzyl alcohol, processes (preparation of encapsulated microparticles having improved flowability by conditioning under vacuum at a temperature below the encapsulant glass transition temperature)

L100 ANSWER 11 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:487335 HCAPLUS Full-text
 DOCUMENT NUMBER: 137:68153
 TITLE: Novel in-situ forming polymer-based controlled release microcarrier delivery systems
 INVENTOR(S): Bhagwatwar, Harshal Prabhakar; Bapat, Varada Ramesh; Patthankar, Mahesh Balkrishna; Veola, Bhushan Subhash; Gossavi, Arun Shrinivas; Bagool, Manoj Anil; Shetty, Nitin; Shukla, Milind Chintaman; De Souza, Noel John; Khorakiwala, Habil Fakhruddin
 PATENT ASSIGNEE(S): India
 SOURCE: PCT Int. Appl., 59 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002049573	A2	20020627	WO 2001-IN219	20011214
WO 2002049573	A3	20030130		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MM, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003049320	A1	20030313	US 2001-23427	20011212

35

10/628,984

processes in automated equipment. Microparticles are conditioned so that a flowability index of the microparticles is .90 or more and an angle of repose for the bulk of .37°. The conditioning preferably includes maintaining the microparticles at a conditioning temperature for a period of time for >2 days, preferably >5 days, optionally under vacuum and optionally with tumbling. The conditioning can be used with microparticles containing an active agent, such as for controlled-release pharmaceuticals, and with placebo microparticles, and it is reversible.

IT 26780-50-7, MEDISORB 7525DL (preparation of encapsulated microparticles having improved flowability by conditioning at temperature below the encapsulant glass transition temperature)
 RN 26780-50-7 HCAPLUS
 CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)
 CM 1
 CRN 502-97-6
 CMP C4 H4 O4



CM 2
 CRN 95-96-5
 CMP C6 H8 O4



IT 100-51-6, Benzyl alcohol, processes (preparation of encapsulated microparticles having improved flowability by conditioning under vacuum at a temperature below the encapsulant glass transition temperature)
 RN 100-51-6 HCAPLUS
 CN Benzenemethanol (CA INDEX NAME)

HO-CH2-Ph

IC ICM B01J013-12

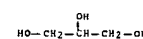
34

10/628,984

CA 2436149 A1 20020627 CA 2001-2436149 20011214
 AU 2002022505 A5 20020701 AU 2002-22505 20011214
 EP 1363556 A2 20031126 EP 2001-271193 20011214
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 PRIORITY APPLN. INFO.: US 2000-256319P P 20001218
 WO 2001-IN219 W 20011214

ED Entered STN: 28 Jun 2002
 AB A ready-to use, stable, gelled polymer droplet-in-oil dispersion is described which helps in in-situ formation of a multitude of small solid, semisolid, or gelled microcarriers. The dispersion is placed into a body in a semisolid form and cures to form the delivery system in-situ. The process for making such a dispersion comprises the steps of (i) dissolving a polymer in a biocompatible solvent at an elevated temperature to form a polymer solution, (ii) preparing a second oil phase solution of a biocompatible emulsifier at an elevated temperature, (iii) mixing the polymer solution with the oil phase solution at an elevated temperature and subsequently cooling to refrigeration temperature. Placing the gelled dispersion within a body produces the microcarrier delivery system in-situ. The composition of a syringeable, biodegradable dispersion incorporating an effective level of a biol. active agent before injection into a body provides a novel controlled delivery system of drugs for health-care applications. Thus, Poly(DL-lactide-co-glycolide) was dissolved in DMSO to form a polymer solution of a 30% weight/weight concentration. To this solution was added leuprolide acetate to form a 10% weight/weight solution of the drug with respect to the polymer. The polymer solution was injected by into a continuous oil phase comprising a 20% weight/weight solution of sorbitan monostearate (Arlacel 60) in super refined sesame seed oil maintained at 70-75°, accompanied by high speed homogenization at 13,000 rpm, for 3 min. The resulting polymer droplet-in-oil dispersion was cooled to room temperature with continuous mixing to obtain an opaque mass with a gel-like consistency, which did not flow. The gel was stored under refrigerated conditions until further use. The gel was smooth to the touch with an absence of any gritty particles. Microscopic observation of the gel revealed discrete distorted blue colored droplets of the discontinuous phase dispersed within the continuous oil phase.

IT 56-81-5, Glycerol, uses (in-situ forming polymer-based controlled release microcarrier delivery systems)
 RN 56-81-5 HCAPLUS
 CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



IT 26780-50-7, Polylactide-co-glycolide (in-situ forming polymer-based controlled release microcarrier delivery systems)
 RN 26780-50-7 HCAPLUS
 CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

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CM 1
CRN 502-97-6
CMF C4 H4 O4



CM 2
CRN 95-96-5
CMF C6 H8 O4



IC ICM A61K
CC 63-6 (Pharmaceuticals)
IT Polymers, biological studies
(biodegradable; in-situ forming polymer-based controlled release microcarrier delivery systems)
IT Drug delivery systems
(buccal; in-situ forming polymer-based controlled release microcarrier delivery systems)
IT Drug delivery systems
(controlled-release; in-situ forming polymer-based controlled release microcarrier delivery systems)
IT Drug delivery systems
(gels; controlled-release; in-situ forming polymer-based controlled release microcarrier delivery systems)
IT Drug delivery systems
(injections, i.m.; in-situ forming polymer-based controlled release microcarrier delivery systems)
IT Drug delivery systems
(injections, i.p.; in-situ forming polymer-based controlled release microcarrier delivery systems)
IT Drug delivery systems
(injections, i.v.; in-situ forming polymer-based controlled release microcarrier delivery systems)
IT Drug delivery systems
(injections, s.c.; in-situ forming polymer-based controlled release microcarrier delivery systems)
IT Drug delivery systems
(nasal; in-situ forming polymer-based controlled release microcarrier delivery systems)
IT Drug delivery systems

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(ophthalmic; in-situ forming polymer-based controlled release microcarrier delivery systems)
IT Drug delivery systems
(oral; in-situ forming polymer-based controlled release microcarrier delivery systems)
IT Drug delivery systems
(rectal; in-situ forming polymer-based controlled release microcarrier delivery systems)
IT Drug delivery systems
(topical; in-situ forming polymer-based controlled release microcarrier delivery systems)
IT Drug delivery systems
(transdermal; in-situ forming polymer-based controlled release microcarrier delivery systems)
IT Drug delivery systems
(vaginal; in-situ forming polymer-based controlled release microcarrier delivery systems)
IT 50-70-4, Sorbitol, uses 56-81-5, Glycerol, uses 57-55-6, Propylene glycol, uses 64-17-5, Ethanol, uses 67-68-5, Dimethyl sulfoxide, uses 68-12-7, Dimethylformamide, uses 105-60-2, Caprolactam, uses 127-19-5, N,N-Dimethylacetamide 616-45-5, 2-Pyrrolidone 872-50-4, N-Methyl-2-pyrrolidone, uses 3079-28-5, Decyl methyl sulfoxide 4740-78-7, 1,3-Dioxan-5-ol 31692-85-0, Glycofural
(in-situ forming polymer-based controlled release microcarrier delivery systems)
IT 50-21-5, Lactic acid, biological studies 53-86-1, Indomethacin 73-78-9, Lidocaine hydrochloride 79-10-70, Acrylic acid, esters, polymers 79-41-40, Methacrylic Acid, esters, polymers 110-27-0, Isopropyl myristate 113-92-8, Chlorpheniramine maleate 145-78-8, Pseudoephedrine hydrochloride 723-46-6, Sulfamethoxazole 738-70-5, Trimethoprim 1338-41-6, Sorbitan monostearate 1398-61-4, Chitin 7585-39-9, β -Cyclodextrin 9002-89-5, Polyvinyl alcohol 9003-11-6, Polyoxethylene-polyoxypropylene copolymer 9003-39-8, Polyvinylpyrrolidone 9004-35-7, Cellulose acetate 9004-57-3, Ethyl cellulose 9004-64-2, Hydroxypropyl cellulose 9004-65-3, Hydroxypropyl methyl cellulose 9004-67-5, Methyl cellulose 9011-14-7, Polymethyl methacrylate 9012-76-4, Chitosan 23031-32-5, Terbutaline sulfate 24938-16-7, Eudragit E-100 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 25222-68-3, Polyethylene glycol 25322-69-4, Polypropylene oxide 25655-41-8, Povidone iodine 26009-03-0, Polyglycolide 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26063-00-3, Polyhydroxybutyrate 26100-51-6, Poly(lactic acid) 26161-42-2, 26202-08-4, Polyglycolide 26266-57-9, Sorbitan monopalmitate 26680-10-4, Polylactide 26744-04-7 26780-50-7, Polylactide-co-glycolide 26811-96-1, Poly(L-lactic acid) 29223-92-5 31621-87-1, Polydioxanone 33069-62-4, Paclitaxel 34346-01-5, Glycolic acid-lactic acid copolymer 62571-86-2, Captopril 67291-18-3, Poly(3-hydroxyvaleric acid), SRU 72509-76-3, Felodipine 74381-53-6, Leuprolide acetate 78644-42-5, Poly(malic acid) 78666-19-0, Poly(malic acid), SRU 79517-01-4, Octreotide acetate 83120-66-5, Poly(3-hydroxyvaleric acid) 106392-12-5, Polyoxethylene-polyoxypropylene block copolymer 132539-06-1, Olanzapine 145781-92-6, Goserelin acetate
(in-situ forming polymer-based controlled release microcarrier delivery systems)

L100 ANSHER 12 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:368346 HCAPLUS Full-text

38

10/628,984

10/628,984

DOCUMENT NUMBER: 136:374862
TITLE: Injectable sustained release delivery system with opiate such as loperamide
INVENTOR(S): Dunn, Richard L.; Osborne, David W.
PATENT ASSIGNER(S): Atrix Laboratories, Inc., USA
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002038185	A2	20020516	WO 2001-US47116	20011113
WO 2002038185	A3	20030116		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CM, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002026000	A5	20020521	AU 2002-26000	20011113
PRIORITY APPLN. INFO.: US 2000-710825 A 20001113				
WO 2001-US47116 W 20011113				

OTHER SOURCE(S): MARPAT 136:374862
ED Entered STN: 18 May 2002
AB A flowable composition containing an opiate suitable for use as a controlled release implant for treatment of hyperalgesia is described. The composition comprises (i) a biodegradable thermoplastic polyester that is at least substantially insol. in aqueous medium or body fluid, (ii) a biocompatible organic solvent that is miscible to dispersible in aqueous medium or body fluid and can effectively dissolve the thermoplastic polyester, and (iii) an antihyperalgesic opiate, e.g., loperamide or its salts. The composition further comprises a glucocorticoid. For example, poly(DL-lactide-co-glycolide) (RG 501H) was dissolved in N-methyl-2-pyrrolidone (NMP) at a concentration of 45% by weight. Loperamide hydrochloride was added to this solution at a 10% by weight to provide a uniform suspension. After sterilization by γ -irradiation at 25 KGy, the formulation can be injected into tissue using a 1-cm³ polypropylene syringe with a 20-gauge needle to provide a sustained release of the drug at the site of injection.
IT 26780-50-7
(Resomer RG 501H, Resomer RG 502H; preparation of injectable sustained-release delivery system containing opiate and glucocorticoid for treatment of hyperalgesia)
RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9C1) (CA INDEX NAME)
CM 1
CRN 502-97-6

39

CMF C4 H4 O4



CM 2
CRN 95-96-5
CMF C6 H8 O4



IT 100-51-6, Benzyl alcohol, biological studies
(preparation of injectable sustained-release delivery system containing opiate and glucocorticoid for treatment of hyperalgesia)
RN 100-51-6 HCAPLUS
CN Benzenemethanol (CA INDEX NAME)

HO-CH₂-PH

IC ICM A61K047-34
ICS A61K031-451
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 2
IT Drug delivery systems
(implants; controlled-release; preparation of injectable sustained-release delivery system containing opiate and glucocorticoid for treatment of hyperalgesia)
IT Drug delivery systems
(injections; sustained release; preparation of injectable sustained-release delivery system containing opiate and glucocorticoid for treatment of hyperalgesia)
IT Drug delivery systems
(kits; preparation of injectable sustained-release delivery system containing opiate and glucocorticoid for treatment of hyperalgesia)
IT Drug delivery systems
(microcapsules; controlled-release; preparation of injectable sustained-release delivery system containing opiate and glucocorticoid for treatment of hyperalgesia)
IT Drug delivery systems

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(sustained-release; preparation of injectable sustained-release delivery system containing opiate and glucocorticoid for treatment of hyperalgesia)

IT 26780-50-7 (Resomer RG 501H, Resomer RG 502H; preparation of injectable sustained-release delivery system containing opiate and glucocorticoid for treatment of hyperalgesia)

IT 57-55-6, Propylene glycol, biological studies 60-01-5, Tributyrin 67-68-5, Dimethyl sulfoxide, biological studies 67-71-0, Dimethyl sulfone 68-12-2, N,N-Dimethylformamide, biological studies 77-94-1, Tributyl citrate 96-48-0, γ -butyrolactone 97-64-3, Ethyl lactate 100-51-6, Benzyl alcohol, biological studies 100-79-8, 2,2-Dimethyl-1,3-dioxolane-4-methanol 102-76-1, Triacetin 105-53-3, Diethyl malonate 105-54-4, Ethyl butyrate 105-60-2, Caprolactam, biological studies 107-88-0, 1,3-Butylene glycol 108-32-7, Propylene carbonate 110-27-0, Isopropyl myristate 110-71-4, Ethylene glycol dimethyl ether 110-80-5, 2-Ethoxyethanol 111-15-9, 2-Ethoxyethyl acetate 112-80-1, Oleic acid, biological studies 120-51-4, Benzyl benzoate 123-25-1, Diethyl succinate 127-19-5, Dimethylacetamide 141-78-6, Ethyl acetate, biological studies 502-44-3, ϵ -Caprolactone 616-38-6, Dimethyl carbonate 616-45-5, 2-Pyrrolidone 818-38-2, Diethyl glutarate 872-50-4, N-Methyl-2-pyrrolidone, biological studies 1198-61-4, Chitin 3079-28-5, Decyl methyl sulfoxide 6935-65-5, N,N-Dimethyl-m-toluidine 9003-09-2, Poly(methyl vinyl ether) 9012-76-4, Chitosan 24817-92-3, Acetyl-tri-n-hexyl citrate 24937-72-2, Poly(maleic anhydride) 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 26009-03-0, Polyglycolide 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26202-08-4, Polyglycolide 26680-10-4, Polylactide 28728-97-4, Poly(hydroxybutyric acid), SRU 31621-87-1, Polydioxanone 31692-85-0, Glycofuro 52352-27-9, Poly(hydroxybutyric acid) 59227-89-3, 1-Dodecylazacycloheptan-2-one 76644-42-5, Poly(malic acid) 102190-94-3, Poly(hydroxyvaleric acid) 207986-05-8, Glycolide-lactide-polyethylene glycol block copolymer (preparation of injectable sustained-release delivery system containing opiate and glucocorticoid for treatment of hyperalgesia)

L100 ANSWER 13 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:256113 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 136:284463

TITLE: Apparatus and method for preparing microparticles using liquid-liquid extraction

INVENTOR(S): Ramstach, J. Michael

PATENT ASSIGNEE(S): Alkermes Controlled Therapeutics, Inc. II, USA

SOURCE: PCT Int. Appl., 42 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002026371	A2	20020404	WO 2001-US28999	20010918
WO 2002026371	A3	20020530		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,			

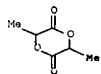
41



CM 2

CRN 95-96-5

CMF C6 H8 O4



IC ICM B01J013-04

ICS A61K009-16

CC 63-6 (Pharmaceuticals)

IT Drug delivery systems (microparticles; apparatus and method for preparing microparticles by using liquid-liquid extraction)

IT 100-51-6, Benzyl alcohol, processes 141-78-6, EtOAc, processes 142-82-5, Heptane, processes 556-67-2, Octamethylcyclotetrasiloxane (apparatus and method for preparing microparticles by using liquid-liquid extraction)

IT 26009-03-0, Polyglycolide 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Poly(DL-lactic acid) 26161-42-2, 26202-08-4, Polyglycolide 26780-50-7, Medisorb 26811-96-1, Poly(L-lactic acid) (apparatus and method for preparing microparticles by using liquid-liquid extraction)

L100 ANSWER 14 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:10224 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 136:74636

TITLE: Drug delivery systems composed of nanoparticles with encapsulated drugs and targeting ligands

INVENTOR(S): Fricker, Gert; Flaig, Ruediger Marcus

PATENT ASSIGNEE(S): Germany

SOURCE: PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

43

NO, NZ, PL, PT, RD, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, AM, AE, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TO

US 6471995 B1 20021029 US 2000-671426 20000927

AU 2001091028 A5 20020408 AU 2001-91028 20010918

US 2003011088 A1 20030116 US 2002-235534 20020906

US 6830737 B2 20041214

US 2004191324 A1 20040930 US 2004-821941 20040412

US 6884372 B2 20050426

PRIORITY APPLN. INFO.: US 2000-671426 A 20000927

WO 2001-US28999 W 20010918

US 2002-235534 A1 20020906

ED Entered STN: 05 Apr 2002

AB Method and apparatus for preparing microparticles using liquid-liquid extraction. A first phase and a second phase are combined to form an emulsion. A portion of the second phase is separated from the emulsion (solvent rich), and the solvent is extracted from the separated second phase, which is then returned (solvent poor) to the emulsion. This process of separation of a solvent rich phase, extraction of solvent, and return of a solvent poor phase, is carried out until a selected level of solvent in the emulsion is achieved. Alternatively, the separated solvent rich phase is not returned to the emulsion, but replaced with another solution, such as an aqueous solution, that is free from solvent. The solvent is preferably extracted into an extraction liquid that functions as a solvent sink for the solvent. Microparticles of ibuprofen were prepared by using Medisorb 7525 PLG as the polymers and EtOAc as the solvent.

IT 100-51-6, Benzyl alcohol, processes (apparatus and method for preparing microparticles by using liquid-liquid extraction)

RN 100-51-6 HCAPLUS

CN Benzenemethanol (CA INDEX NAME)

HO-CH₂-Ph

IT 26780-50-7, Medisorb (apparatus and method for preparing microparticles by using liquid-liquid extraction)

RN 26780-50-7 HCAPLUS

CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 502-97-6

CMF C4 H4 O4

42

WO 2002000162 A2 20020103 WO 2001-DE2360 20010629

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RD, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TO

DE 10118312 A1 20020502 DE 2001-10118312 20010411

DE 10118852 A1 20021031 DE 2001-10118852 20010417

AU 2001076276 A5 20020108 AU 2001-76276 20010629

PRIORITY APPLN. INFO.: DE 2000-10030786 A 20000629

DE 2000-10053811 A 20001031

DE 2001-10118312 A 20010411

DE 2001-10118852 A 20010417

WO 2001-DE2360 W 20010629

ED Entered STN: 04 Jan 2002

AB The invention relates to solid particles for transporting hydrophobic or hydrophobic-modified pharmaceutical active agents, to a method for producing them, to drugs containing the particles and to the use of the particles for various selected indications. Drugs are dissolved in organic solvents along with water immiscible polymers, amphiphilic polymers and additives; the solution is sonicated, dialyzed against water and the nanoparticles are separated. Thus tritium-labeled daunomycin was encapsulated; the nanoparticles were coupled via their aminogroups to monofunctional PEG or bifunctional (NHS-ester/vinylsulfone-PEG), that is, they were coupled to targeting ligands via cysteine. Targeting ligands were selected from the group of human transferrin, BSA or single-chain antibodies to transferrin receptors. Trypanosoma brucei brucei were incubated with the product; cytotoxicity was determined.

IT 100-51-6, Benzylalcohol, biological studies (drug delivery systems composed of nanoparticles with encapsulated drugs and targeting ligands)

RN 100-51-6 HCAPLUS

CN Benzenemethanol (CA INDEX NAME)

HO-CH₂-Ph

IT 26780-50-7, Lactide-glycolide copolymer (drug delivery systems composed of nanoparticles with encapsulated drugs and targeting ligands)

RN 26780-50-7 HCAPLUS

CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

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CM 1
CRN 502-97-6
CMP C4 H4 O4



CM 2
CRN 95-96-5
CMP C6 H8 O4



IC ICM A61K
CC 63-6 (Pharmaceuticals)
IT Amino group
Amphiphiles
Anticancer agents
Cytotoxicity
Drug delivery systems
Encapsulation
Gene therapy
Human
Nanoparticles
Parasiticides
Particle size
Sulphydryl group
Trypanosoma brucei
(drug delivery systems composed of nanoparticles with encapsulated drugs and targeting ligands)
IT Drug delivery systems
(nanoparticles; drug delivery systems composed of nanoparticles with encapsulated drugs and targeting ligands)
IT 75-09-2, Methane, dichloro-, biological studies 100-51-6,
Benzylalcohol, biological studies 6066-82-6D, N-Hydroxysuccinimide,
esters 95378-73-7
(drug delivery systems composed of nanoparticles with encapsulated drugs and targeting ligands)
IT 142-72-3, Magnesium acetate 9002-89-5, Polyvinylalcohol
20830-81-3, Daunomycin 25322-68-3D, PEG, reaction products with
vinylsulfone and NHS-ester 25322-69-4, Polypropylene glycol
26202-08-4, Polyglycolide 26680-10-4, Polylactide 26780-50-7

45

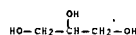
Lactide-glycolide copolymer 121065-25-6D, reaction products with
NHS-ester 384829-42-9
(drug delivery systems composed of nanoparticles with encapsulated drugs and targeting ligands)

L100 ANSWER 15 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:10222 HCAPLUS Full-text
DOCUMENT NUMBER: 136:90943
TITLE: Biodegradable vehicles and delivery systems of biologically active substances
Shukla, Atul J.
INVENTOR(S):
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 60 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002000137	A1	20020103	WO 2001-US6138	20010226
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6432438	B1	20020813	US 2000-605661	20000628
CN 1332016	A	20020123	CN 2000-120871	20000803
CA 2413157	A1	20020103	CA 2001-2413157	20010226
AU 2001045346	A5	20020108	AU 2001-45346	20010226
EP 1299048	A1	20030409	EP 2001-918249	20010226
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004511431	T	20040415	JP 2002-504922	20010226
NZ 523385	A	20050930	NZ 2001-523385	20010226
US 2004018238	A1	20040129	US 2003-312394	20030411
PRIORITY APPLN. INFO.:				
			US 2000-605661	A 20000628
			IN 2000-MU694	A 20000725
			CN 2000-120871	A 20000803
			US 1997-63680P	P 19971029
			US 1998-181515	A1 19981028

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ED Entered STM: 04 Jan 2002
AB Biodegradable vehicle and delivery systems of physiol., pharmacol. and biol. active substance(s) (BAS) are provided. The biodegradable vehicles may be prepared by blending biodegradable polymers and plasticizers using a novel solvent evaporation method. This method involves dissolving the biodegradable polymer or copolymer and a plasticizer or mixts. of plasticizers into a volatile solvent or mixts. of volatile solvents. The volatile solvent is then removed using vacuum or at an elevated temperature or using a combination of both vacuum and elevated temperature. The biodegradable vehicle can be used as a filler or spacer in the body. BAS can be added to the biodegradable vehicle at any step during or after preparing the biodegradable vehicle, or just prior to using the biodegradable delivery system. This biodegradable delivery system provides controlled release of the BAS over the desired period of time. The biodegradable vehicle or BAS-loaded biodegradable delivery system can be injected, implanted, smeared or applied in vivo in an animal, bird or human. A polymer (50% weight/weight of 50/50 lactide-co-glycolide copolymer) was dissolved in min. quantity of acetone. Tri-Et citrate at 50% weight/weight was added to the polymer solution and was stirred to yield a uniform mixture. Acetone was evaporated from the mixture by heating at 60-75° with constant stirring. The resulting formulation obtained was a matrix with a gel-like consistency.
IT 56-81-5, Glycerol, biological studies 26780-50-7,
Glycolide-lactide copolymer
(biodegradable vehicles and delivery systems of biol. active substances)
RN 56-81-5 HCAPLUS
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



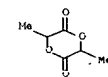
RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with
1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1
CRN 502-97-6
CMP C4 H4 O4



CM 2
CRN 95-96-5
CMP C6 H8 O4

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IC ICM A61F002-00
ICS A61F013-00; A61K009-22
63-6 (Pharmaceuticals)
CC biodegradable vehicle polymer drug
ST Glycerides, biological studies
IT (C16-18; biodegradable vehicles and delivery systems of biol. active substances)
IT Glycerides, biological studies
(C8-10, ethoxylated; biodegradable vehicles and delivery systems of biol. active substances)
IT Angiogenesis
(agents for; biodegradable vehicles and delivery systems of biol. active substances)
IT Fats and Glyceridic oils, biological studies
(almond; biodegradable vehicles and delivery systems of biol. active substances)
IT Analgesics
Anesthetics
Angiogenesis inhibitors
Animal cell
Animal cell line
Animal tissue
Anti-inflammatory agents
Antibiotics
Antipsychotics
Antitumor agents
Antiviral agents
Bark
Bone
Bronchodilators
Cardiovascular agents
Contraceptives
Decomposition kinetics
Embryophyta
Eubacteria
Flower
Fruit
Fungicides
Human
Hydrophilicity
Hydrophobicity
Leaf
Narcotics
Nervous system agents
Opioid antagonists
Pancreatic islet of Langerhans
Plants
Plasticizers
Root

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Seed
Stem
Tree
Vaccines
Vasodilators
Virus
(biodegradable vehicles and delivery systems of biol. active substances)
IT Polymer blends
(biodegradable vehicles and delivery systems of biol. active substances)
IT Alkaloids, biological studies
Antibodies and Immunoglobulins
Antigens
Cottonseed oil
DNA
Growth factors, animal
Hormones, animal, biological studies
Peanut oil
Peptides, biological studies
Polyamides, biological studies
Polyanhydrides
Polycarbonates, biological studies
Polyesters, biological studies
Polyoxyalkylenes, biological studies
Polyphosphazenes
Proteins
RNA
Soybean oil
Steroids, biological studies
Sunflower oil
(biodegradable vehicles and delivery systems of biol. active substances)
IT Drug delivery systems
(biodegradable; biodegradable vehicles and delivery systems of biol. active substances)
IT Polymers, biological studies
(biodegradable; biodegradable vehicles and delivery systems of biol. active substances)
IT Flower
Leaf
Organ, plant
(bud; biodegradable vehicles and delivery systems of biol. active substances)
IT Polyesters, biological studies
(caprolactone-based; biodegradable vehicles and delivery systems of biol. active substances)
IT Drug delivery systems
(controlled-release; biodegradable vehicles and delivery systems of biol. active substances)
IT Polyesters, biological studies
(dilactone-based; biodegradable vehicles and delivery systems of biol. active substances)
IT Fatty acids, biological studies
Polyoxyalkylenes, biological studies
(esters; biodegradable vehicles and delivery systems of biol. active substances)
IT Glycols, biological studies
(ethers; biodegradable vehicles and delivery systems of biol. active substances)

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IT DNA
RNA
(fragments; biodegradable vehicles and delivery systems of biol. active substances)
IT Ethers, biological studies
(glycol; biodegradable vehicles and delivery systems of biol. active substances)
IT Polyesters, biological studies
(hydroxycarboxylic acid-based; biodegradable vehicles and delivery systems of biol. active substances)
IT Polyesters, biological studies
(lactic acid-based; biodegradable vehicles and delivery systems of biol. active substances)
IT Polyesters, biological studies
(lactide; biodegradable vehicles and delivery systems of biol. active substances)
IT Polyethers, biological studies
(ortho ester group-containing; biodegradable vehicles and delivery systems of biol. active substances)
IT Polyamides, biological studies
(poly(amino acids); biodegradable vehicles and delivery systems of biol. active substances)
IT Polyesters, biological studies
(polyamide; biodegradable vehicles and delivery systems of biol. active substances)
IT Polyesters, biological studies
(polycarbonate; biodegradable vehicles and delivery systems of biol. active substances)
IT Polyamides, biological studies
Polycarbonates, biological studies
(polyester; biodegradable vehicles and delivery systems of biol. active substances)
IT Fats and Glyceridic oils, biological studies
(sesame; biodegradable vehicles and delivery systems of biol. active substances)
IT Fats and Glyceridic oils, biological studies
(vegetable; biodegradable vehicles and delivery systems of biol. active substances)
IT 57107-95-6, Gelucire 44/1
(Gelucire 44/1; biodegradable vehicles and delivery systems of biol. active substances)
IT 9011-21-6, Gelucire 53/10
(Gelucire 53/10; biodegradable vehicles and delivery systems of biol. active substances)
IT 50-70-4, Sorbitol, biological studies 56-81-5, Glycerol, biological studies 57-55-6, Propylene glycol, biological studies 77-89-4, Acetyl triethyl citrate 77-90-7, Acetyl tributyl citrate 77-92-90, Citric acid, esters 77-93-0, Triethyl citrate 77-94-1, Tributyl citrate 84-66-2, Diethyl phthalate 84-74-2, Dibutyl phthalate 88-99-3D, Phthalic acid, esters 96-48-0, γ -Butyrolactone 102-76-1, Glyceryl triacetate 108-32-7, Propylene carbonate 109-43-3, Dibutyl sebacate 110-27-0, Isopropyl myristate 110-80-5, Ethylene glycol monoethyl ether 111-20-6D, Sebacic acid, esters 111-62-6, Ethyl oleate 111-90-0, Diethylene glycol monoethyl ether 117-81-7, Dioctyl phthalate 120-51-4, Benzyl benzoate 126-13-6, Sucrose acetate isobutyrate 127-19-5, Dimethylacetamide 131-11-3, Dimethyl phthalate 142-91-6, Isopropyl palmitate 540-10-3, Cetyl palmitate 555-43-1, Glyceryl triacetate 616-45-5, 2-Pyrrolidone 629-14-1, Ethylene glycol diethyl ether 872-50-4, N-Methyl-2-pyrrolidone, biological studies 1306-06-5.

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Hydroxyapatite 1320-67-8, Propylene glycol monomethyl ether 1323-61-7, Glyceryl distearate 7778-18-9, Calcium sulfate 9007-48-1, Polyglyceryl oleate 10103-46-5, Calcium phosphate 24817-92-3, Acetyl tri-n-hexyl citrate 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 25322-68-3, Polyethylene glycol 25322-68-3D, Polyethylene glycol, esters 25637-84-7, Glyceryl dioleate 25718-55-2, Poly(ethylene carbonate) 26009-03-0, Polyglycolic acid 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediy)] 26041-91-8, Poly(ethylene carbonate) 26063-00-3, Polyhydroxybutyrate 26100-51-6, Polylactic acid 26124-68-5, Polyglycolic acid 26202-08-4, Polyglycolide 26680-10-4, Polylactide 26744-04-7 26780-50-7, Glycolide-lactide copolymer 29223-92-5 31621-87-1, Polydioxanone 31692-85-0, Glycofurol 32074-56-9, Diethyl citrate 34346-01-5, Glycolic acid-lactic acid copolymer 34590-94-8, Dipropylene glycol monomethyl ether 37321-62-3, Propylene glycol laurate 42441-30-5 42475-45-6 54264-01-6 67660-31-5 68332-79-6, Propylene glycol caprylate 75734-93-9, Poly(glycolide-co-trimethylene carbonate) 82469-79-2, Butyryl tri-n-hexyl citrate 83138-62-9, Polyglyceryl isostearate 88917-22-0, Dipropylene glycol methyl ether acetate 90451-37-9 90493-72-8 102190-94-3, Poly(hydroxyvaleric acid) 119574-40-2 121548-05-8, Gelucire 50/13 133516-01-5, Propylene glycol caprate 146478-45-7 159350-71-7, Poly(ϵ -decalactone) 212210-85-0 386258-39-5
(biodegradable vehicles and delivery systems of biol. active substances)
IT 77538-19-3, Glyceryl behenate
(glyceryl behenate; biodegradable vehicles and delivery systems of biol. active substances)
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L100 ANSWER 16 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:502742 HCAPLUS Full-text
DOCUMENT NUMBER: 137:68166
TITLE: High viscosity non-polymeric liquid controlled delivery system and medical or surgical device
INVENTOR(S): Gibson, John W.; Sullivan, Stacey A.; Middleton, John C.; Tipton, Arthur J.
PATENT ASSIGNEE(S): Southern BioSystems, Inc., USA
SOURCE: U.S., 22 pp., Cont.-in-part of U.S. 5,968,542. CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6413536	B1	20020702	US 1999-385107	19990827
US 5747058	A	19980505	US 1995-474337	19950607
EP 1525858	A1	20050427	EP 2005-75143	19960607
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1781555	A	20060607	CN 2005-10104020	19960607

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CA 2382540	A1	20010308	CA 2000-2382540	20000824
WO 2001015734	A2	20010308	WO 2000-US23270	20000824
WO 2001015734	A3	20010913		
W: AR, AQ, AL, AM, AT, AU, AZ, BA, BB, BO, BR, BY, BZ, CA, CH, CM, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MX, MY, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GR, GW, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BG, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 200073319	A	20010326	AU 2000-73319	20000824
EP 1212092	A2	20020612	EP 2000-961358	20000824
EP 1212092	B1	20051026		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003508449	T	20030304	JP 2001-520145	20000824
AT 307611	T	20051115	AT 2000-961358	20000824
ES 2254219	T3	20060616	ES 2000-961358	20000824
US 7053209	B1	20060530	US 2000-699002	20001026
US 2004101557	A1	20040527	US 2002-316441	20021210
US 2006210599	A1	20060921	US 2006-440642	20060524
AU 2006203112	A1	20060810	AU 2006-203112	20060720
PRIORITY APPLN. INFO.:			US 1995-474337	A2 19950607
			US 1995-478450	B2 19950607
			US 1997-944022	A2 19970915
			CN 1996-195895	A3 19960607
			EP 1996-921521	A3 19960607
			US 1999-385107	A 19990827
			WO 2000-US23270	W 20000824
			US 2000-699002	A2 20001026
			AU 2003-200423	A3 20030207

OTHER SOURCE(S): MARPAT 137:68166
ED Entered STN: 04 Jul 2002
AB The present invention relates to novel nonpolymeric compds. and compns. that form liquid, high viscosity materials suitable for the delivery of biol. active substances in a controlled fashion, and for use as medical or surgical devices. The materials can optionally be diluted with a solvent to form a material of lower viscosity, rendering the material easy to administer. This

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solvent may be water insol. or water soluble, where the water soluble solvent rapidly diffuses or migrates away from the material in vivo, leaving a higher viscosity liquid material. For example, a high viscosity liquid carrier was prepared by reacting 247.13 g (1.71 mol) DL-lactide, 62.87 g (0.54 mol) glycolide, and 49.6 g (0.42 mol) 1,6-hexanediol. Following initial melting, 1.84 mL (260 µmol) of a 0.141 M stannous 2-ethylhexanoate solution in toluene was added. The resulting product had an inherent viscosity of 0.058 dL/g in CHCl₃ at 30°. The material was a liquid at room temperature

IT 26780-50-7, Poly(DL-lactide-co-glycolide)
(high viscosity ester liquid carriers for controlled-release drug delivery systems)

RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 502-97-6
CMF C4 H4 O4



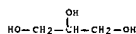
CM 2

CRN 95-96-5
CMF C6 H8 O4



IT 56-81-5, Glycerol, biological studies
(high viscosity ester liquid carriers for controlled-release drug delivery systems)

RN 56-81-5 HCAPLUS
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



IT 100-51-6, Benzyl alcohol, biological studies
9002-72-6, Growth hormone

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(high viscosity ester liquid carriers for controlled-release drug delivery systems)

IT 56-81-5, Glycerol, biological studies 108-32-7, Propylene carbonate
(high viscosity ester liquid carriers for controlled-release drug delivery systems)

IT 51-21-8, 5-Fluorouracil 64-17-5, Ethanol, biological studies
67-64-1, Acetone, biological studies 67-66-3, Chloroform, biological studies
67-68-5, Dimethyl sulfoxide, biological studies 74-98-6, Propane, biological studies 75-43-4, Dichlorofluoromethane
75-69-4, Trichlorofluoromethane 77-93-0, Triethyl citrate 78-93-3, Methyl ethyl ketone, biological studies 79-20-9, Methyl acetate
97-64-3, Ethyl lactate 100-51-6, Benzyl alcohol, biological studies 100-79-8, 2,2-Dimethyl-1,3-dioxolane-4-methanol 102-76-1, Triacetin 105-60-2, Caprolactam, biological studies 106-97-8, Butane, biological studies 109-99-9, Tetrahydrofuran, biological studies 110-27-0, Isopropyl myristate
111-62-6, Ethyl oleate 111-90-0, Diethylene glycol monoethyl ether 112-80-1, Oleic acid, biological studies 115-10-6, Dimethyl ether
120-51-4, Benzyl benzoate 124-07-2D, Caprylic acid, esters with alkylene glycols 126-13-6, SAIB 141-78-6, Ethyl acetate, biological studies 334-48-5D, Capric acid, esters with alkylene glycols 431-89-0, 1,1,1,2,3,3,3-Heptafluoropropane 616-45-5, 2-Pyrrolidone 811-97-2, R 134a 872-50-4, N-Methyl-2-pyrrolidone, biological studies 3079-28-5, Decyl methyl sulfoxide 7481-89-2, Dideoxycytidine 9001-63-2, Lysozyme 9002-72-6, Growth hormone 9004-10-8, Insulin, biological studies 11096-26-7, Erythropoietin 25265-75-2, Butylene glycol 25322-68-3, Polyethylene glycol 30516-87-1, Zidovudine 31692-85-0, Glycofurol 34424-98-1, Caprol 10040 38396-39-3, Bupivacaine 52814-38-7, Tetraglycol 59227-89-3, 1-Dodecylazacycloheptan-2-one 62031-54-3, Fibroblast growth factor 76009-37-5, Caprol 6020 143011-72-7, Granulocyte colony stimulating factor
(high viscosity ester liquid carriers for controlled-release drug delivery systems)

REFERENCE COUNT: 129 THERE ARE 129 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L100 ANSWER 17 OF 38 HCAPLUS COPYRIGHT 2007 ACS ON STN
ACCESSION NUMBER: 2002:426628 HCAPLUS Full-text
DOCUMENT NUMBER: 136:406894
TITLE: Biodegradable biocompatible polymeric microparticles
INVENTOR(S): Rickey, Michael E.; Rametack, J. Michael; Lewis, Danny H.; Mesene, Jean Louis
PATENT ASSIGNEE(S): Alkermes Controlled Therapeutics Inc. II, USA; Janssen Pharmaceutica N.V.
SOURCE: Eur. Pat. Appl., 17 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1210942	A2	20020605	EP 2002-75905	19970506
EP 1210942	A3	20040526		

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(high viscosity ester liquid carriers for controlled-release drug delivery systems)

RN 100-51-6 HCAPLUS
CN Benzenemethanol (CA INDEX NAME)

HO—CH₂—Ph

RN 9002-72-6 HCAPLUS
CN Somatotropin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM A61F002-02
ICS A61F013-02; A61K009-14; B32B005-16; B01J013-02
INCL 424423000
CC 63-6 (Pharmaceuticals)
IT Drug delivery systems
(aerosols; high viscosity esters as liquid carriers for controlled drug delivery systems)

IT Polymers, biological studies
(biodegradable; high viscosity ester liquid carriers for controlled-release drug delivery systems)

IT Drug delivery systems
(capsules; high viscosity esters as liquid carriers for controlled drug delivery systems)

IT Drug delivery systems
(carriers; high viscosity esters as liquid carriers for controlled drug delivery systems)

IT Drug delivery systems
(controlled-release, films; high viscosity esters as liquid carriers for controlled drug delivery systems)

IT Drug delivery systems
(implants, controlled-release; high viscosity esters as liquid carriers for controlled drug delivery systems)

IT Drug delivery systems
(injections; high viscosity esters as liquid carriers for controlled drug delivery systems)

IT Drug delivery systems
(microspheres; high viscosity esters as liquid carriers for controlled drug delivery systems)

IT Drug delivery systems
(nasal; high viscosity esters as liquid carriers for controlled drug delivery systems)

IT Drug delivery systems
(pulmonary; high viscosity esters as liquid carriers for controlled drug delivery systems)

IT Drug delivery systems
(rectal; high viscosity esters as liquid carriers for controlled drug delivery systems)

IT Drug delivery systems
(topical; high viscosity esters as liquid carriers for controlled drug delivery systems)

IT Drug delivery systems
(vaginal; high viscosity esters as liquid carriers for controlled drug delivery systems)

IT 9004-35-8, Cellulose acetate butyrate 26780-50-7, Poly(DL-lactide-co-glycolide)

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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT,
IE, SI, LT, LV, FI, RO, AL
EP 904063 A2 19990331 EP 1997-923063 19970506
EP 904063 B1 20020904
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT,
IE, SI, LT, LV, FI, RO
TR 9802258 T2 20011121 TR 1998-2258 19970506
PT 904063 T 20030131 PT 1997-923063 19970506
ES 2183172 T3 20030316 ES 1997-923063 19970506
PRIORITY APPLN. INFO.:
US 1996-643919 A 19960507
EP 1997-923063 A3 19970506
US 1996-41551P P 19960507
WO 1997-EP2431 W 19970506
ED Entered STN: 06 Jun 2002
AB An improved method of preparing a pharmaceutical composition in microparticle form designed for the controlled release of a drug over an extended period of time is described. Microparticles, ranging in size from 25 to 180 µ, comprise a biodegradable biocompatible polymeric matrix containing an active agent and an organic solvent being present at ≤ 2% of the total weight of the microparticles. A particulate material or microparticles are useful for the manufacture of a medicament useful in diagnosis or therapy. For example, risperidone-loaded microparticles were prepared by dissolving 75 g of Medisorb lactide/glycolide copolymer (75:25) and 50 g of risperidone in 275 g of benzyl alc. and 900.25 g of Et acetate as the organic phase. The aqueous phase comprised 90.0 g of polyvinyl alc., 8910 g of water, 646.4 g of Et acetate, and 298.3 g of benzyl alc. The organic and aqueous phases were pumped through a static mixer to form an emulsion, the resulting emulsion passed into a quenched liquid at 10° to obtain microspheres. Are then filtered and washed with a first wash of 11.25 kg of ethanol and 33.75 kg of water for 2 h at 10 C. The resulting microspheres were then filtered, washed and dried. Three batches produced according to this procedure provide risperidone contents of 37.4%, 37.0%, and 36.6% by weight Benzyl alc. levels were 1.36%, 1.26%, and 1.38% by weight, while Et acetate levels were 0.09%, 0.08%, and 0.09% by weight, resp.
IT 26780-50-7, Medisorb (polymer)
(preparation of biodegradable biocompatible polymeric microparticles for controlled drug release)
RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 502-97-6
CMF C4 H4 O4



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CM 2
CRN 95-96-5
CMF C6 H8 O4



IT 100-51-6, Benzyl alcohol, biological studies
(preparation of biodegradable biocompatible polymeric microparticles for controlled drug release)
RN 100-51-6 HCAPLUS
CN Benzenemethanol (CA INDEX NAME)

HO-CH₂-Ph

IC ICM A61K031-519
ICS A61K009-58
CC 63-6 (Pharmaceuticals)
ST biodegradable polymer controlled release microparticle
IT Polymers, biological studies
(biodegradable; preparation of biodegradable biocompatible polymeric microparticles for controlled drug release)
IT Glass transition temperature
(ethanol effect on; preparation of biodegradable biocompatible polymeric microparticles for controlled drug release)
IT Polymer degradation
(hydrolytic; preparation of biodegradable biocompatible polymeric microparticles for controlled drug release)
IT Polyesters, biological studies
(hydroxycarboxylic acid-based; preparation of biodegradable biocompatible polymeric microparticles for controlled drug release)
IT Drug delivery systems
(microparticles, controlled-release; preparation of biodegradable biocompatible polymeric microparticles for controlled drug release)
IT Solvents
(organic; preparation of biodegradable biocompatible polymeric microparticles for controlled drug release)

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10/628,984

IT 26780-50-7, Poly(glycolide-co-lactide)
(thermodn. parameters on poly(d,l-lactide-co-glycolide) particle size in emulsification-diffusion process)
RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1
CRN 502-97-6
CMF C4 H4 O4



CM 2
CRN 95-96-5
CMF C6 H8 O4



CC 63-5 (Pharmaceuticals)
IT Drug delivery systems
(nanoparticles; thermodn. parameters on poly(d,l-lactide-co-glycolide) particle size in emulsification-diffusion process)
IT 78-93-3, Methyl ethyl ketone, properties 100-51-6, Benzyl alcohol, properties 108-32-7, Propylene carbonate 141-78-6, Ethyl acetate, properties (thermodn. parameters on poly(d,l-lactide-co-glycolide) particle size in emulsification-diffusion process)
IT 26780-50-7, Poly(glycolide-co-lactide)
(thermodn. parameters on poly(d,l-lactide-co-glycolide) particle size in emulsification-diffusion process)
REFERENCE COUNT: 14
THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L100 ANSWER 19 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:130616 HCAPLUS [Full-text](#)
DOCUMENT NUMBER: 137:315871
TITLE: A novel sustained-release formulation of insulin

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IT Diagnostic agents
Particle size
(preparation of biodegradable biocompatible polymeric microparticles for controlled drug release)
IT 26780-50-7, Medisorb (polymer) 34346-01-5, Glycolic acid-DL-lactic acid copolymer
(preparation of biodegradable biocompatible polymeric microparticles for controlled drug release)
IT 100-51-6, Benzyl alcohol, biological studies 141-78-6, Ethyl acetate, biological studies 9002-89-5, Polyvinyl alcohol 106266-06-2, Risperidone 144598-75-4, 9-Hydroxyriperidone
(preparation of biodegradable biocompatible polymeric microparticles for controlled drug release)
IT 64-17-5, Ethanol, biological studies
(washing with; preparation of biodegradable biocompatible polymeric microparticles for controlled drug release)

L100 ANSWER 18 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:142358 HCAPLUS [Full-text](#)
DOCUMENT NUMBER: 137:299678
TITLE: Thermodynamic parameters on poly(d,l-lactide-co-glycolide) particle size in emulsification-diffusion process
AUTHOR(S): Choi, Sung-Wook; Kwon, Hye-Young; Kim, Woo-Sik; Kim, Jung-Hyun
CORPORATE SOURCE: Department of Chemical Engineering, Nanosphere Process & Technology Laboratory, Yonsei University, Sodaemcon-ku, Seoul, 120-749, S. Korea
SOURCE: Colloids and Surfaces, A: Physicochemical and Engineering Aspects (2002), 201(1-3), 283-289
CODEN: CPAAEH; ISSN: 0927-7757
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

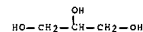
ED Entered STN: 22 Feb 2002
AB The emulsification-diffusion method was thermodynamically studied for making poly(d,l-lactide-co-glycolide) (PLGA) nanoparticles quant. considering the diffusion and the solvent-polymer interaction. The properties of various solvents and polymer were also evaluated on the formation of PLGA nanoparticles, such as diffusion coeff. (Daw, Dws), exchange ratio (R=Daw/Dws), and solvent-polymer interaction parameter (χ). R was found to be proportional to the size of the PLGA nanoparticles, while χ was inversely proportional to it. In the case of the higher value of R and lower value of χ , a small local supersatn. region was produced at the O/W interface and the small nanoparticles separated from the oil globule were formed in that region. This thermodyn. approach provides a rational basis for the selection of solvent to control the size of PLGA nanoparticles.
IT 100-51-6, Benzyl alcohol, properties (thermodn. parameters on poly(d,l-lactide-co-glycolide) particle size in emulsification-diffusion process)
RN 100-51-6 HCAPLUS
CN Benzenemethanol (CA INDEX NAME)

HO-CH₂-Ph

58

10/628,984

AUTHOR(S): with dramatic reduction in initial rapid release
Takenaga, Mitsuko; Yamaguchi, Yoko; Kitagawa, Aki; Ogawa, Yasuaki; Mizushima, Yutaka; Igarashi, Rie
CORPORATE SOURCE: Institute of Medical Science, St. Marianna University School of Medicine, Miyamae-ku, Kawasaki, 216-8512, Japan
SOURCE: Journal of Controlled Release (2002), 79(1-3), 81-91
CODEN: JCREEC; ISSN: 0168-3659
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 20 Feb 2002
AB To ensure a strictly controlled release of insulin, a preparation method for insulin-loaded microcapsules was designed. Microcapsules were prepared with an injectable, biodegradable polymer composed of co-poly(d,l-lactic/glycolic) acids (PLGA) (mean mol. weight 6600, LA/GA ratio 50:50). Morphol. examination using scanning electron microphotog. demonstrated spherical particles with a main diameter of 15-30 μ m. When 3% insulin-loaded PLGA microcapsules were administered s.c. as a single dose (250 U/kg) to streptozotocin-induced hyperglycemic rats, plasma insulin levels increased and were sustained at levels showing hypoglycemic effects. When glycerin, ethanol, or distilled water was used throughout the preparation procedure, the resultant microcapsules dramatically reduced the initial burst. The formulation in which glycerin was added to an oil phase containing PLGA, insulin, and ZnO increased plasma insulin levels to 86.7, 108.4, and 84.9 μ U/mL at 1, 2, and 6 h, resp. The levels remained at 36.2-140.7 μ U/mL from day 1 to day 9. The AUC₀₋₂₄ h/AUC₀₋₃₃₆ h ratio was calculated to be 9.7%. The formulation prepared without additives gave such a rapid insulin release that animals receiving it became transiently hypoglycemic.
IT 56-81-5, Glycerin, biological studies
(sustained-release formulation of insulin with dramatic reduction in initial rapid release)
RN 56-81-5 HCAPLUS
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



IT 26780-50-7, Poly(glycolide-co-lactide)
(sustained-release formulation of insulin with dramatic reduction in initial rapid release)
RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)
CM 1
CRN 502-97-6
CMF C4 H4 O4

60



CM 2

CRN 95-96-5
CMP C6 H8 O4

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 1

IT Drug delivery systems

(microcapsules, sustained-release; sustained-release formulation of insulin with dramatic reduction in initial rapid release)

IT 56-81-5, Glycerin, biological studies

(sustained-release formulation of insulin with dramatic reduction in initial rapid release)

IT 557-34-6, Zinc acetate 1314-13-2, Zinc oxide (ZnO), biological studies 26780-50-7, Poly(glycolide-co-lactide)

(sustained-release formulation of insulin with dramatic reduction in initial rapid release)

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L100 ANSWER 20 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:359770 HCAPLUS Full-text

DOCUMENT NUMBER: 134:371770

TITLE: Apparatus and method for preparing microparticles

using in-line solvent extraction

INVENTOR(S): Lyons, Shawn L.; Wright, Steven G.

PATENT ASSIGNEE(S): Alkermes Controlled Therapeutics Inc. II, USA

SOURCE: PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001034120	A1	20010517	WO 2000-US41845	20001103

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH,

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GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW

RM: GH, GM, KE, LS, MM, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6495166 B1 20021217 US 1999-438656 19991112

CA 2390563 A1 20010517 CA 2000-2390563 20001103

EP 1242053 A1 20020925 EP 2000-990484 20001103

EP 1242053 B1 20050112

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

JP 2003513905 T 20030415 JP 2001-536120 20001103

AU 773734 B2 20040603 AU 2001-27508 20001103

AT 286722 T 20050115 AT 2000-990484 20001103

PT 1242053 T 20050429 PT 2000-990484 20001103

ES 2236035 T3 20050716 ES 2000-990484 20001103

US 2003133357 A1 20030717 US 2002-319845 20021216

US 6705757 B2 20040316

US 2004247688 A1 20041209 US 2003-729909 20031209

US 6939033 B2 20050906

US 2005266091 A1 20051201 US 2005-158078 20050622

PRIORITY APPLN. INFO.:

US 1999-438656 A 19991112

WO 2000-US41845 W 20001103

US 2001-930450 A1 20010816

US 2002-319845 A1 20021216

US 2003-729909 A1 20031209

ED Entered STN: 18 May 2001

AB An emulsion is formed by combining two phases in a static mixer. The outflow of the blending static mixer flows into a vessel containing the second extraction liquid. The emulsion combined with an extraction liquid in a blending static mixer is combined with addnl. extraction liquid. The addnl. extraction liquid and the outflow of the blending static mixer can be combined in a vessel, or through the use of a static mixer manifold that includes a plurality of static mixers. Risperidone microparticles were prepared using the invention apparatus. The loading efficiency of the microparticles was 92.2% and the residual solvents (Et acetate:benzyl alc.) was 3.6:5.14. A schematic drawing of the apparatus is depicted.

IT 100-51-6, Benzyl alcohol, uses (apparatus and method for preparing microparticles using in-line solvent extraction)

RN 100-51-6 HCAPLUS

CN Benzenemethanol (CA INDEX NAME)

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RE FORMAT

HO-CH₂-Ph

IT 26780-50-7, Medisorb 7525DL

(apparatus and method for preparing microparticles using in-line solvent extraction)

RN 26780-50-7 HCAPLUS

CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 502-97-6

CMP C4 H4 O4



CM 2

CRN 95-96-5

CMP C6 H8 O4



IC ICM A61K009-16

CC 63-6 (Pharmaceuticals)

IT Drug delivery systems

(microparticles; apparatus and method for preparing microparticles using in-line solvent extraction)

IT 100-51-6, Benzyl alcohol, uses 141-78-6,

Ethyl acetate, uses 9002-89-5, Polyvinyl alcohol

(apparatus and method for preparing microparticles using in-line solvent extraction)

IT 26780-50-7, Medisorb 7525DL 26780-50-7,

Poly(D,L-lactide-glycolide) 106266-06-2, Risperidone 144598-75-4,

9 Hydroxyrisperidone

(apparatus and method for preparing microparticles using in-line solvent extraction)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE

L100 ANSWER 21 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:359763 HCAPLUS Full-text

DOCUMENT NUMBER: 134:371768

TITLE: Apparatus and method for preparing pharmaceutical microparticles

INVENTOR(S): Lyons, Shawn L.; Wright, Steven G.

PATENT ASSIGNEE(S): Alkermes Controlled Therapeutics Inc. II, USA

SOURCE: PCT Int. Appl., 39 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001034113	A2	20010517	WO 2000-US41842	20001103

WO 2001034113 A3 20020314

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,

CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH,

GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,

LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ,

PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ,

UA, UG, UZ, VN, YU, ZA, ZW

RM: GH, GM, KE, LS, MM, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,

CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,

TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6331317 B1 20011218 US 1999-438659 19991112

CA 2390284 A1 20010517 CA 2000-2390284 20001103

EP 1231898 A2 20020821 EP 2000-991722 20001103

EP 1231898 B1 20061227

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,

PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

JP 2003513710 T 20030415 JP 2001-536113 20001103

AU 771497 B2 20040325 AU 2001-34379 20001103

US 2001031801 A1 20011018 US 2001-828849 20010410

US 6395304 B2 20020528

US 6540393 B1 20030401 US 2001-930450 20010816

US 2002146661 A1 20021010 US 2002-109641 20020401

US 6537586 B2 20030325

US 2003147967 A1 20030807 US 2003-355061 20030131

US 6713090 B2 20040330

US 2004197469 A1 20041007 US 2003-713039 20031117

US 6861016 B2 20050301

US 2005196457 A1 20050908 US 2005-41985 20050126

PRIORITY APPLN. INFO.:

US 1999-438659 A 19991112

63

64

WO 2000-US41842 W 20001103
 US 2001-828849 A1 20010410
 US 2002-109641 A1 20020401
 US 2003-355061 A1 20030131
 US 2003-713039 A1 20031117

ED Entered STN: 18 May 2001
 AB Apparatus and method for preparing microparticles are disclosed. An emulsion is formed by combining two phases in a static mixing assembly. The static mixing assembly preferably includes a preblending static mixer and a manifold. The emulsion flows out of the static mixing assembly into a quench liquid whereby droplets of the emulsion form microparticles. The residence time of the emulsion in the static mixing assembly is controlled to obtain a predetd. particle size distribution of the resulting microparticles. Risperidone microparticles were prepared using the invention apparatus. The percentage of microparticles within desired microparticle size of less than 150µm was 94.5-99%. A schematic drawing of the apparatus is depicted.

IT 100-51-6, Benzyl alcohol, uses
 (apparatus and method for preparing pharmaceutical microparticles)
 RN 100-51-6 HCAPLUS
 CN Benzenemethanol (CA INDEX NAME)

HO-CH₂-Ph

IT 26780-50-7, Medisorb 7525DL
 (apparatus and method for preparing pharmaceutical microparticles)
 RN 26780-50-7 HCAPLUS
 CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with
 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 502-97-6
 CMF C4 H4 O4



CM 2

CRN 95-96-5
 CMF C6 H8 O4

65

10/628,984

may control the release of the BAS for the desired length of time. Blank formulations were prepared by dissolving 25% of a polymer (50/50 lactide-co-glycolide copolymer, inherent viscosity of 0.59) and 75% of pure PEG 400 in a min. quantity of acetone. Acetone was evaporated from the mixts. by heating at 60-75° with constant stirring. The resulting formulations obtained were a matrix with viscous liquid-like consistency. Oxytetracycline was added to the formulations and mixed thoroughly to ensure uniform drug distribution. Controlled drug release from the drug-loaded formulations was observed at 37° in isotonic phosphate buffer containing sodium sulfite as an antioxidant.

IT 26780-50-7, Glycolide-lactide copolymer
 (biodegradable delivery systems of biol. active substances)
 RN 26780-50-7 HCAPLUS
 CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with
 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 502-97-6
 CMF C4 H4 O4

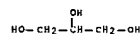


CM 2

CRN 95-96-5
 CMF C6 H8 O4

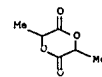


IT 56-81-5, Glycerol, biological studies
 (plasticizer; biodegradable delivery systems of biol. active substances)
 RN 56-81-5 HCAPLUS
 CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



IC A61P002-00; A61P013-00; A61K009-00; A61K009-22

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IC ICM A61K009-00
 CC 63-6 (Pharmaceuticals)
 IT Drug delivery systems
 (microparticles; apparatus and method for preparing pharmaceutical microparticles)
 IT 100-51-6, Benzyl alcohol, uses 141-78-6,
 Ethyl acetate, uses 9002-69-5, Polyvinyl alcohol
 (apparatus and method for preparing pharmaceutical microparticles)
 IT 26780-50-7, Medisorb 7525DL 26780-50-7,
 Poly(D,L-lactide-glycolide) 106266-06-2, Risperidone 144598-75-4,
 9 Hydroxyrisperidone
 (apparatus and method for preparing pharmaceutical microparticles)

L100 ANSWER 22 OF 38 HCAPLUS COPYRIGHT 2007 ACS ON STN
 ACCESSION NUMBER: 2001-145161 HCAPLUS Full-text
 DOCUMENT NUMBER: 134:198091
 TITLE: Biodegradable delivery systems of
 biologically active substances
 INVENTOR(S): Shukla, Atul J.
 PATENT ASSIGNER(S): USA
 SOURCE: U.S., 24 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6193991	B1	20010227	US 1998-181515	19981028
US 6432438	B1	20020813	US 2000-605661	20000628
PRIORITY APPLN. INFO.:				
			US 1997-63680P	P 19971029
			US 1998-181515	A1 19981028

ED Entered STN: 28 Feb 2001
 AB Biodegradable delivery systems of physiolo. pharmacol. and biol. active substance(s) (BAS) are provided. These systems are obtained by incorporating the BAS into a blend of biodegradable polymers and plasticizers using a novel solvent evaporation method. This method involves dissolving the biodegradable polymer or copolymer and a plasticizer into a volatile solvent. The BAS may then be added to this mixture. The volatile solvent is removed using vacuum or at an elevated temperature or using a combination of both vacuum and elevated temperature. The resultant mixture is a BAS-loaded formulation which when injected, implanted or applied in vivo in an animal or human, provides controlled release of the BAS over the desired period of time. Alternatively, a blank formulation may be first prepared by the aforementioned methodol. without incorporating the BAS in the formulation. An appropriate quantity of BAS is then added to this formulation to yield a BAS-loaded formulation which

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INCL 424426000
 CC 63-6 (Pharmaceuticals)
 ST biodegradable polymer-matrix drug delivery; polyester
 lactide glycolide oxytetracycline implant
 IT Glycerides, biological studies
 (C8-10, ethoxylated, plasticizer; biodegradable delivery systems of biol. active substances)
 IT Fats and Glyceridic oils, biological studies
 (almond, plasticizer; biodegradable delivery systems of biol. active substances)
 IT Analgesics
 Anesthetics
 Animal tissue
 Anti-inflammatory agents
 Antibiotics
 Antipsychotics
 Antitumor agents
 Antiviral agents
 Bronchodilators
 Cardiovascular agents
 Cell
 Fungicides
 Nervous system agents
 Plasticizers
 Vasodilators
 (biodegradable delivery systems of biol. active substances)
 IT Alkaloids, biological studies
 Antibodies
 Antigens
 DNA
 Growth promoters, animal
 Hormones, animal, biological studies
 Peptides, biological studies
 Polyamides, biological studies
 Polyanhydrides
 Polyesters, biological studies
 Steroids, biological studies
 (biodegradable delivery systems of biol. active substances)
 IT Proteins, specific or class
 (biol. active; biodegradable delivery systems of biol. active substances)
 IT Polyesters, biological studies
 (glycolide-based; biodegradable delivery systems of biol. active substances)
 IT Drug delivery systems
 (implants; biodegradable delivery systems of biol. active substances)
 IT Drug delivery systems
 (injections; biodegradable delivery systems of biol. active substances)
 IT Polyesters, biological studies
 (lactide; biodegradable delivery systems of biol. active substances)
 IT Polyethers, biological studies
 (ortho ester group-containing; biodegradable delivery systems of biol. active substances)
 IT Cottonseed oil
 Peanut oil

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Polyoxyalkylenes, biological studies
Soybean oil
Sunflower oil
(plasticizer; biodegradable delivery systems of biol. active substances)

IT Fertility
(regulators; biodegradable delivery systems of biol. active substances)

IT Fats and Glyceridic oils, biological studies
(sesame, plasticizer; biodegradable delivery systems of biol. active substances)

IT Fats and Glyceridic oils, biological studies
(vegetable, plasticizer; biodegradable delivery systems of biol. active substances)

IT 50-53-3, Chlorpromazine, biological studies 57-83-0, Progesterone, biological studies 58-22-0, Testosterone 58-55-9, Theophylline, biological studies 79-57-2, Oxytetracycline 525-66-6, Propranolol 797-63-7, Levonorgestrel 1306-06-5, Hydroxyapatite 2058-46-0, Oxytetracycline hydrochloride 4205-90-7, Clonidine 9004-10-8, Insulin, biological studies 10103-46-5, Calcium phosphate 16590-41-3, Maltrexone 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Poly(lactic acid 26780-50-7, Glycolide-lactide copolymer 29122-68-7, Atenolol 34346-01-5, Glycolic acid-lactic acid copolymer 51384-51-1, Metoprolol 52352-27-9, Polyhydroxybutyric acid 80137-67-3, Caprolactone-lactic acid copolymer 102190-94-3, Polyhydroxyvaleric acid (biodegradable delivery systems of biol. active substances)

IT 50-70-4, Sorbitol, biological studies 54-81-5, Glycerol, biological studies 57-55-6, Propylene glycol, biological studies 77-89-4, Acetyl triethyl citrate 77-93-0, Triethyl citrate 84-66-2, Diethyl phthalate 96-48-0, γ -Butyrolactone 102-76-1, Glyceryl triacetate 108-32-7, Propylene carbonate 111-20-6D, Sebacic acid, derivative 111-90-0, Diethylene glycol monoethyl ether 131-11-3, Dimethyl phthalate 616-45-5, 2-Pyrrolidone 872-50-4, N-Methylpyrrolidone, biological studies 25322-68-3, Polyethylene glycol 88917-22-0, Dipropylene glycol methyl ether acetate (plasticizer; biodegradable delivery systems of biol. active substances)

IT 67-64-1, Acetone, biological studies 67-66-3, Chloroform, biological studies 75-09-2, Dichloromethane, biological studies 78-93-3, Methyl ethyl ketone, biological studies 79-20-9, Methyl acetate 109-99-9, Tetrahydrofuran, biological studies 141-78-6, Ethyl acetate, biological studies 920-66-1 13098-39-0 (solvent; biodegradable delivery systems of biol. active substances)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L100 ANSWER 23 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:701730 HCAPLUS Full-text
DOCUMENT NUMBER: 137:37479
TITLE: Poly(ethylene carbonate)s, part III: degradation mechanisms and parenteral delivery of bioactive agents
AUTHOR(S): Stoll, G. H.; Nimmerfall, F.; Acemoglu, M.; Bodmer, D.; Bantle, S.; Muller, I.; Mahl, A.

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Kolopp, M.; Tullberg, K.
Novartis Pharma AG, Basel, CH-4002, Switz.
Journal of Controlled Release (2001), 76(3), 209-225
CODEN: JCREEC; ISSN: 0168-3659
Elsevier Science Ireland Ltd.
Journal
English
ED Entered STN: 26 Sep 2001

AB The degradation and drug carrier properties of poly(ethylene carbonate) (PEC) were investigated in vitro and in rats and rabbits. PEC was found to be specifically degraded in vivo and in vitro by superoxide radical anions O₂⁻, which are, in vivo, mostly produced by inflammatory cells. No degradation of PEC was observed in the presence of hydrolases, serum or blood. PEC is biodegraded by surface erosion without significant change in the mol. weight of the residual polymer mass. The non-hydrolytic biodegradn. by cells producing O₂⁻ is unique among the polymers used as biodegradable drug carriers. The main degradation product of PEC in aqueous systems is ethylene glycol, formed presumably by hydrolysis of ethylene carbonate. The splitting off of a five-membered ring structure from the polymer chain indicates a chain reaction mechanism for the biodegradn. PEC is a suitable drug carrier, particularly for labile drugs. Using human interleukin-3 and octreotide as model drugs, surface erosion of the PEC formulations was indicated by a 1:1 correlation between drug release and polymer mass loss.

IT 26780-50-7D, Poly(lactide-co-glycolide), reaction products with glucose (degradation mechanisms and drug carrier properties of poly(ethylene carbonate)s)

RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 502-97-6
CMP C4 H4 O4



CM 2

CRN 95-96-6
CMP C6 H8 O4



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IT 107-21-1, Ethylene glycol, formation (nonpreparative)
(degradation mechanisms and drug carrier properties of poly(ethylene carbonate)s)

RN 107-21-1 HCAPLUS
CN 1,2-Ethanediol (9CI) (CA INDEX NAME)

HO-CH₂-CH₂-OH

CC 63-5 (Pharmaceuticale)
Section cross-reference(s): 1, 35
ST polyethylene carbonate peptide delivery biodegradn
IT Drug delivery systems
(microparticles; degradation mechanisms and drug carrier properties of poly(ethylene carbonate)s)

IT Drug delivery systems
(tablets; degradation mechanisms and drug carrier properties of poly(ethylene carbonate)s)

IT 25718-55-2, Poly(ethylene carbonate) 26041-91-8, Poly(ethylene carbonate) 26780-50-7D, Poly(lactide-co-glycolide), reaction products with glucose (degradation mechanisms and drug carrier properties of poly(ethylene carbonate)s)

IT 107-21-1, Ethylene glycol, formation (nonpreparative)
(degradation mechanisms and drug carrier properties of poly(ethylene carbonate)s)

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L100 ANSWER 24 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:804165 HCAPLUS Full-text
DOCUMENT NUMBER: 130:57200
TITLE: Multiphase system for controlled drug release
INVENTOR(S): Bodmeier, Roland
PATENT ASSIGNEE(S): Germany
SOURCE: PCT Int. Appl., 44 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9855100	A1	19981210	WO 1998-DE1589	19980605
<--				
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RN: GH, GW, KE, LS, MW, SD, SZ, UD, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
DE 19724784	A1	19981210	DE 1997-19724784	19970605

71

DE 19811951	A1	19990916	DE 1998-19811951	19980313
<--				
AU 9885304	A	19981221	AU 1998-85304	19980605
<--				
EP 996426	A1	20000503	EP 1998-936136	19980605
<--				
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, PT, IE, FI				
PRIORITY APPLN. INFO.:				
<--				
				DE 1998-19811951 A 19980313
<--				
				WO 1998-DE1589 W 19980605
<--				

ED Entered STN: 23 Dec 1998

AB A multiphase system for formation of a drug-containing implant in vivo comprises a carrier phase and 21 further phase which cannot be mixed with the carrier phase or only partially mixed therewith, wherein the change in ambient conditions on injection of the system alters (generally increases) the viscosity of the carrier phase, resulting in formation of an implant or particles enriched in carrier (and active agent). The change in ambient conditions may involve a change in pH, ionic species, ionic strength, temperature, etc. The carrier is a water-soluble or -insol., biodegradable polymer, e.g. a polylactide, polysaccharide, protein, or lipid or combination thereof, and is dissolved or dispersed in the carrier phase. Thus, poly(DL-lactide) was dissolved in a mixture of DMSO, PEG-400, and Tween 80 to form a carrier phase. A 2nd phase was prepared by mixing 2% Al stearate with peanut oil at elevated temperature, cooling, and adding Span 80. The 2 phases were combined to form an emulsion.

IT 26780-50-7, Lactide/glycolide copolymer (carrier; multiphase system for controlled drug release)

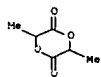
RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)



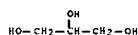
CM 2

CRN 95-96-6
CMP C6 H8 O4

72



IT 56-81-5, 1,2,3-Propanetriol, biological studies
(solvent; multiphase system for controlled drug release)
RN 56-81-5 HCAPLUS
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



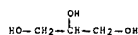
IC ICM A61K009-00
ICS A61K009-20
CC 63-6 (Pharmaceuticals)
IT Polymers, biological studies
(biodegradable; drug carriers; multiphase system for controlled drug release)
IT Drug delivery systems
(buccal; multiphase system for controlled drug release)
IT Drug delivery systems
(capsules; multiphase system for controlled drug release)
IT Drug delivery systems
(carriers; multiphase system for controlled drug release)
IT Drug delivery systems
(controlled-release; multiphase system for controlled drug release)
IT Drug delivery systems
(emulsions; multiphase system for controlled drug release)
IT Drug delivery systems
(implants; multiphase system for controlled drug release)
IT Drug delivery systems
(injections, s.c.; multiphase system for controlled drug release)
IT Drug delivery systems
(nasal; multiphase system for controlled drug release)
IT Drug delivery systems
(oral; multiphase system for controlled drug release)
IT Drug delivery systems
(parenterals; multiphase system for controlled drug release)
IT Drug delivery systems
(particles; multiphase system for controlled drug release)
IT Drug delivery systems
(rectal; multiphase system for controlled drug release)
IT Drug delivery systems
(sublingual; multiphase system for controlled drug release)
IT Drug delivery systems
(topical; multiphase system for controlled drug release)
IT Drug delivery systems
(transdermal; multiphase system for controlled drug release)
IT Drug delivery systems
(vaginal; multiphase system for controlled drug release)

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RU 2207882 C2 20030710 RU 1999-106523 19970814
IL 128496 A 20040620 IL 1997-128496 19970814
JP 2006231090 A 20060907 JP 2006-157904 20060606
PRIORITY APPLN. INFO.:
US 1996-704852 A 19960827
US 1997-903674 A 19970731
JP 1998-511970 A3 19970814
WO 1997-US15262 W 19970814

ED Entered STN: 19 Mar 1998
AB Mol. crosslinked gels comprise a variety of biol. and non-biol. polymers, such as proteins, polysaccharides, and synthetic polymers. Such mol. gels may be applied to target sites in a patient's body by extruding the gel through an orifice at the target site. Alternatively, the gels may be mech. disrupted and used in implantable articles, such as breast implants. When used in vivo, the compns. are useful for inhibiting post-surgical spinal and other tissue adhesions, for filling tissue divots, tissue tracts, body cavities, surgical defects, and the like. An example fragmented polymer product was prepared from gelatin, NaOH, Na periodate to give granules which were swollen, dried and resuspended in Na phosphate, and NaCl solution
IT 56-81-5, Glycerol, biological studies 26780-50-7, Glycolide-lactide copolymer (fragmented polymeric hydrogels for adhesion prevention)
RN 56-81-5 HCAPLUS
CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



RN 26780-50-7 HCAPLUS
CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 502-97-6
CMF C4 H4 O4



CM 2

CRN 95-96-5

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10/628,984

IT 9012-76-4, Chitosan 26780-50-7, Lactide/glycolide copolymer 106392-13-5, Lutrol P 127 84563-76-8, Chitosan glutamate 106392-13-5, Lutrol P 127 (carrier; multiphase system for controlled drug release)
IT 56-81-5, 1,2,3-Propanetriol, biological studies 57-55-6, 1,2-Propanediol, biological studies 64-17-5, Ethanol, biological studies 67-63-0, Isopropanol, biological studies 67-64-1, Acetone, biological studies 67-68-5, DMSO, biological studies 68-12-2, DMF, biological studies 71-23-8, n-Propanol, biological studies 71-36-3, n-Butanol, biological studies 71-41-0, n-Pentanol, biological studies 77-93-0, Triethyl citrate 79-20-9 102-76-1, Triacetin 109-94-4, Ethyl formate 109-99-9, THF, biological studies 110-27-0, Isopropyl myristate 111-62-6, Ethyl oleate 127-19-5, Dimethylacetamide 141-78-6, Acetic acid ethyl ester, biological studies 616-45-5, 2-Pyrrolidone 872-50-4, N-Methyl-2-pyrrolidone, biological studies 25322-68-3 (solvent; multiphase system for controlled drug release)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L100-ANSWER 25 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:163488 HCAPLUS Full-text
DOCUMENT NUMBER: 128:208937
TITLE: Fragmented polymeric hydrogels for adhesion prevention and their preparation
INVENTOR(S): Wallace, Donald G.; Reich, Cary J.; Shargill, Narinder S.; Vega, Felix; Osawa, A. Edward
PATENT ASSIGNEE(S): Fusion Medical Technologies, Inc., USA
SOURCE: PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9808550	A1	19980305	WO 1997-US15262	19970814
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW			
RW:	GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
CA 2264647	A1	19980305	CA 1997-2264647	19970814
AU 9742412	A	19980319	AU 1997-42412	19970814
AU 719534	B2	20000511		
EP 927053	A1	19990707	EP 1997-940692	19970814
EP 927053	B1	20030402		
R:	BE, CH, DE, ES, FR, GB, IT, LI, NL, IE			
BR 9711241	A	19990817	BR 1997-11241	19970814
JP 2002515086	T	20020521	JP 1998-511970	19970814

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10/628,984

CMF C6 H8 O4



IC ICM A61L027-00
ICS A61L031-00
CC 63-6 (Pharmaceuticals)
IT Polymers, biological studies
(biodegradable; fragmented polymeric hydrogels for adhesion prevention)
IT Drug delivery systems
(hydrogels; fragmented polymeric hydrogels for adhesion prevention)
IT 50-70-4, Sorbitol, biological studies 56-81-5, Glycerol, biological studies 9002-04-4, Thrombin 9004-34-6D, Cellulose, derive., biological studies 9005-25-8D, Starch, derive., biological studies 9005-32-7, Alginate acid 9012-36-6, Agarose 9012-76-4, Chitosan 9014-63-5, Xylan 9034-32-6D, Hemicellulose, derive. 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 25322-68-3, Peg 26780-50-7, Glycolide-lactide copolymer (fragmented polymeric hydrogels for adhesion prevention)
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L100-ANSWER 26 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:399069 HCAPLUS Full-text
DOCUMENT NUMBER: 129:99914
TITLE: Clonazepam microencapsulation in poly(DL-lactide-co-glycolide) microspheres
AUTHOR(S): Benelli, P.; Conti, B.; Genta, I.; Costantini, M.; Montanari, L.
CORPORATE SOURCE: Istituto di Chimica Farmaceutica e Tossicologia, Univ. di Milano, Milan, 20131, Italy
SOURCE: Journal of Microencapsulation (1998), 15(4), 431-443
CODEN: JOMIEP; ISSN: 0265-2048
PUBLISHER: Taylor & Francis Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 01 Jul 1998

AB The work was aimed at the preparation and characterization of biodegradable microspheres of poly(DL-lactide-co-glycolide) (PLGA) for the controlled release of clonazepam. The solubility characteristics of this drug make it an interesting example to evaluate the performances of the two most widely used microencapsulation techniques, emulsification solvent evaporation and spray-drying. Several biodegradable PLGA copolymers were evaluated (RG 502H, RG 503H, RG 503). They differ in terms of mol. weight and physicochem. characteristics. The microspheres obtained were characterized by their morphol., physicochem. properties (DSC) and in vitro dissoln. behavior. Between the 2 preparation methods, only spray-drying was suitable for the microencapsulation of clonazepam in PLGA microspheres. In vitro dissoln.

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tests highlight that more sustained release of drug was achieved with the higher mol. weight polymer.

IT 26780-50-7 (Resomer RG 502H, Resomer RG 503H; clonazepam microencapsulation in poly(lactide-co-glycolide) microspheres)

RN 26780-50-7 HCAPLUS

CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 502-97-6

CMF C4 H4 O4



CM 2

CRN 95-96-5

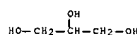
CMF C6 H8 O4



IT 56-81-5, Glycerol, biological studies (clonazepam microencapsulation in poly(lactide-co-glycolide) microspheres)

RN 56-81-5 HCAPLUS

CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



CC 63-5 (Pharmaceuticals)

IT Polymers, biological studies (biodegradable; clonazepam microencapsulation in poly(lactide-co-glycolide) microspheres)

IT Drug delivery systems (microspheres; clonazepam microencapsulation in poly(lactide-co-glycolide) microspheres)

IT 26780-50-7

77

NZ 333196 A 20000228 NZ 1997-333196 19970506

JP 2000503663 T 20000328 JP 1997-529631 19970506

JP 3822909 B2 20060920

AT 223206 T 20020915 AT 1997-923063 19970506

RU 2201214 C2 20030327 RU 1998-122206 19970506

SK 283852 B6 20040302 SK 1998-1541 19970506

CZ 293578 B6 20040616 CZ 1998-3591 19970506

IL 126509 A 20040831 IL 1997-126509 19970506

PL 188550 B1 20050228 PL 1997-329720 19970506

EE 4540 B1 20051017 EE 1998-383 19970506

NO 9804808 A 19990106 NO 1998-4808 19981015

BG 64036 B1 20031128 BG 1998-102854 19981015

KR 2000010697 A 20000225 KR 1998-708777 19981030

HK 1016884 A1 20021220 HK 1999-101960 19990430

JP 2006249440 A 20060921 JP 2006-125554 20060428

PRIORITY APPLN. INFO.: US 1996-41551P P 19960507

US 1996-643919 A 19960507

JP 1997-529631 A3 19970506

WO 1997-EP2431 W 19970506

ED Entered STN: 24 Nov 1997

AB The invention provides a process for the preparation of biodegradable biocompatible microparticles comprising active agents encapsulated within a polymeric matrix to improve storage stability. The process comprises contacting microparticles of a biodegradable biocompatible polymer matrix containing the active agent and an organic solvent with an aqueous solvent system whereby the content of the organic solvent in the particles is reduced to 52 % of the particles, where the solvent system being such as to satisfy at least one of the conditions (a) that it is at an elevated temperature (e.g. 25-40°) during at least part of the time that it is in contact with the particles and (b) that it comprises water and water-miscible solvent for the organic solvent; and recovering the particles from the aqueous solvent system. Risperidone 50 g and lactide-glycolide copolymer 75 g were dissolved in 275 g of benzyl alc. and 900.25 g of EtOAc as the organic phase. The aqueous phase comprised polyvinyl alc. 90, water 8910, EtOAc 646.4, and benzyl alc. 298.3 g. The organic and aqueous phases were pumped through a static mixer to form an emulsion. The resulting emulsion was passed into a quench liquid comprising water 17, EtOAc 4.4878, Na2CO3 0.371, and NaHCO3 0.294 kg to obtain microspheres, which were washed with ethanol/water, citric acid/Na phosphate/water, and water. The filtered product contained risperidone 36.6, benzyl alc. 1.38, and EtOAc 0.09 %.

IT 26780-50-7, Lactide-glycolide copolymer (manufacture of biodegradable biocompatible

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(Resomer RG 502H, Resomer RG 503H; clonazepam microencapsulation in poly(lactide-co-glycolide) microspheres)

IT 56-81-5, Glycerol, biological studies 1338-43-8, Span 80

1622-61-3, Clonazepam 9002-89-5, PVA 9004-65-3, Methocel K5

9005-65-6, Tween 80

(clonazepam microencapsulation in poly(lactide-co-glycolide) microspheres)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L100 ANSWER 27 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1997:740428 HCAPLUS Full-text

DOCUMENT NUMBER: 128:39549

TITLE: Manufacture of microparticles for the controlled-release dosage forms

INVENTOR(S): Rickey, Michael E.; Ramstach, J. Michael; Lewis, Danny H.; Mesens, Jean Louis

PATENT ASSIGNER(S): Alkermes Controlled Therapeutics Inc., USA; Janssen Pharmaceutica N.V.

SOURCE: PCT Int. Appl., 43 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9741837	A2	19971113	WO 1997-EP2431	19970506
WO 9741837	A3	19980226		
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KO, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU			
RM:	GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
ZA 9703891	A	19971107	ZA 1997-3891	19970506
CA 2251987	A1	19971113	CA 1997-2251987	19970506
CA 2251987	C	20050510		
AU 9728972	A	19971126	AU 1997-28972	19970506
AU 733199	B2	20010510		
EP 904063	A2	19990331	EP 1997-923063	19970506
EP 904063	B1	20020904		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IR, SI, LT, LV, FI, RO			
BR 9709217	A	19990810	BR 1997-9217	19970506
CN 1226821	A	19990825	CN 1997-196219	19970506
HU 9902797	A2	19991228	HU 1999-2797	19970506
HU 223532	B1	20040830		

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microparticles)

RN 26780-50-7 HCAPLUS

CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 502-97-6

CMF C4 H4 O4



CM 2

CRN 95-96-5

CMF C6 H8 O4



IT 100-51-6, Benzyl alcohol, biological studies (two-phase solvent system; manufacture of biodegradable biocompatible microparticles)

RN 100-51-6 HCAPLUS

CN Benzenemethanol (CA INDEX NAME)



IC ICM A61K009-16

CC 63-6 (Pharmaceuticals)

ST risperidone polyester microparticle two phase solvent; benzyl alc acetate risperidone polyester microencapsulation

IT Alcohols, biological studies (C1-4, two-phase solvent system; manufacture of biodegradable biocompatible microparticles)

IT Polyesters, biological studies (manufacture of biodegradable biocompatible microparticles)

IT Drug delivery systems Drug delivery systems

80

(microparticles, controlled-release; manufacture of biodegradable biocompatible microparticles)

IT 9002-89-5, Polyvinyl alcohol 26009-03-0, Polyglycolic acid 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediy)] 26100-51-6, Poly(DL-lactic acid) 26124-68-5, Polyglycolic acid 26161-42-2, 26780-50-7, Lactide-glycolide copolymer 26811-96-1, Poly(L-lactic acid) 106266-06-2, Risperidone 144598-75-4, 9-Hydroxyrisperidone (manufacture of biodegradable biocompatible microparticles)

IT 100-51-6, Benzyl alcohol, biological studies 141-78-6, Ethyl acetate, biological studies (two-phase solvent system; manufacture of biodegradable biocompatible microparticles)

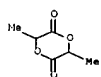
L100 ANSWER 28 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1995:996640 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 124:37707
 TITLE: Liquid delivery compositions
 INVENTOR(S): Yewey, Gerald L.; Krinick, Nancy L.; Dunn, Richard L.; Radomsky, Michael L.; Brouwer, Gerbrand; Tipton, Arthur J.
 PATENT ASSIGNER(S): Actix Laboratories, Inc., USA
 SOURCE: PCT Int. Appl., 51 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9527481	A1	19951019	WO 1995-US3792	19950327
W:	AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM			
RW:	KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
CA 2187353	A1	19951019	CA 1995-2187353	19950327
AU 9521294	A	19951030	AU 1995-21294	19950327
AU 684931	B2	19980108		
EP 754032	A1	19970122	EP 1995-914202	19950327
EP 754032	B1	20011205		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE			
BR 9507313	A	19971007	BR 1995-7313	19950327
JP 09511741	T	19971125	JP 1995-526358	19950327
EP 1125577	A2	20010822	EP 2001-111735	19950327
EP 1125577	A3	20030108		
EP 1125577	B1	20060215		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE			

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CM 2
 CRN 95-96-5
 CMF C6 H8 O4



IC ICM A61K009-22
 ICS A61K047-48
 CC 63-6 (Pharmaceuticals)
 IT Pharmaceutical dosage forms (liquid controlled-release; liquid controlled release drug delivery systems)

IT 56-81-5, Glycerol, biological studies 57-55-6, Propylene glycol, biological studies 60-01-5, Tributyrin 67-64-1, Acetone, biological studies 67-68-5, Dmsc, biological studies 67-71-0, Dimethyl sulfone 68-12-2, Dmf, biological studies 77-93-0, Triethyl citrate 77-94-1, Tributyl citrate 78-93-3, MEK, biological studies 97-64-3, Ethyl lactate 100-79-8, Solketal 102-76-1, Triacetin 105-53-3, Diethyl malonate 105-54-4, Ethyl butyrate 105-58-8, Diethyl carbonate 105-60-2, Caprolactam, biological studies 108-32-7, Propylene carbonate 109-99-9, Thf, biological studies 112-80-1, Oleic acid, biological studies 123-25-1, Diethyl succinate 127-19-5, Dimethylacetamide 134-62-3, Benzamide, N,N-diethyl-3-methyl- 141-78-6, Ethyl acetate, biological studies 616-45-5, 2-Pyrrolidone 818-38-2, Diethyl glutarate 872-50-4, N-Methyl-2-pyrrolidone, biological studies 1190-39-2, Dibutyl malonate 3079-28-5, Decyl methyl sulfoxide 4740-78-7, 1,3-Dioxan-5-ol 5464-28-8, Glycerol formal 7226-23-5, 1,3-Dimethyl-3,4,5,6-tetrahydro-2(1H)-pyrimidinone 24817-92-3, 1,2,3-Propanetricarboxylic acid, 2-acetoxy-, trihexyl ester 52814-38-7, Tetraglycol 59227-89-3, Azone (liquid controlled release drug delivery systems)

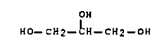
IT 9003-09-2, Poly(methyl vinyl ether) 24937-72-2, Poly(maleic anhydride) 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 26009-03-0, Polyglycolide 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediy)] 26202-08-4, Polyglycolide 26680-10-4, Polylactide 26780-50-7, Glycolide-lactide copolymer 31621-87-1D, Polydioxanone, deriva. 82352-27-9D, Poly(hydroxybutyric acid), deriva. 78644-42-5, Polymalic acid 102190-94-3D, Pentanoic acid, hydroxy-, homopolymer, deriva. 171866-63-0

83

PAT. IE	T	20011215	AT 1995-914202	19950327
PT 754032	T	20020531	PT 1995-914202	19950327
ES 2171186	T3	20020901	ES 1995-914202	19950327
AT 317690	T	20060315	AT 2001-111735	19950327
ES 2258495	T3	20060901	ES 2001-111735	19950327
US 5759563	A	19980602	US 1995-486262	19950607
US 5780044	A	19980714	US 1996-761015	19961205
US 5744153	A	19980428	US 1997-871492	19970609
PRIORITY APPLN. INFO.:			US 1994-225140	A 19940408
			EP 1995-914202	A3 19950327
			WO 1995-US3792	W 19950327
			US 1995-487979	B1 19950607

ED Entered STN: 22 Dec 1995
 AB Improved biocompatible liquid delivery compns., which ar useful for the formation of sustained release delivery systems for active agents, are provided. The compns. include liquid formulations of a biocompatible polymer or prepolymer in combination with a controlled release component. The controlled release component includes an active agent. These compns. may be introduced into the body of a subject in liquid form from which then solidify or cure in situ to form a controlled release implant or a film dressing. The liquid delivery compns. may also be employed ex situ to produce a controlled release implant. Methods of forming a controlled release implant and employing the liquid formulations in the treatment of a subject are also provided.

IT 56-81-5, Glycerol, biological studies (liquid controlled release drug delivery systems)
 RN 56-81-5 HCAPLUS
 CN 1,2,3-Propanetriol (9CI) (CA INDEX NAME)



IT 26780-50-7, Glycolide-lactide copolymer (liquid controlled release drug delivery systems)
 RN 26780-50-7 HCAPLUS
 CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1
 CRN 502-97-6
 CMF C4 H4 O4

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(liquid controlled release drug delivery systems)

L100 ANSWER 29 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1995:782008 HCAPLUS [Full-text](#)
 DOCUMENT NUMBER: 123:179481
 TITLE: Preparation of biodegradable microparticles containing a biologically active agent
 INVENTOR(S): Ramstach, J. Michael; Herbert, Paul F.; Strobel, Jan; Atkins, Thomas J.; Nazrati, Azar M.
 PATENT ASSIGNER(S): Medisorb Technologies International L.P., USA
 SOURCE: PCT Int. Appl., 87 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9513799	A1	19950526	WO 1994-US13453	19941118
W:	AU, BG, BR, CA, CN, CZ, FI, HU, JP, KR, NO, NZ, PL, RM: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE			
CA 2176716	A1	19950526	CA 1994-2176716	19941118
CA 2474701	A1	19950526	CA 1994-2474701	19941118
AU 9511010	A	19950606	AU 1995-11010	19941118
AU 684324	B2	19971211		
EP 729353	A1	19960904	EP 1995-901961	19941118
EP 729353	B1	20020206		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE			
JP 09505308	T	19970527	JP 1995-514664	19941118
EP 998917	A1	20000510	EP 1999-122848	19941118
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE			
AT 212830	T	20020215	AT 1995-901961	19941118
PT 729353	T	20020731	PT 1995-901961	19941118
ES 2172574	T3	20021001	ES 1995-901961	19941118
EP 1649850	A1	20060426	EP 2005-24791	19941118
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE			
US 5650173	A	19970722	US 1996-725439	19961003
US 5654008	A	19970805	US 1996-729277	19961010
AU 9736831	A	19971120	AU 1997-36831	19970905
AU 697887	B2	19981022		
PRIORITY APPLN. INFO.:			US 1993-154409	A 19931119

84

US 1994-298787 A 19940831
 US 1994-338805 A 19941110
 CA 1994-2176716 A3 19941118
 EP 1995-901961 A3 19941118
 EP 1999-122848 A3 19941118
 WO 1994-US13453 W 19941118



CM 2
 CRN 95-96-5
 CMF C6 H8 O4



IC ICM A61K009-50
 CC 63-6 (Pharmaceuticals)
 IT Emulsifying agents
 Solvents
 Surfactants
 (preparation of biodegradable microparticles containing biol. active agents)
 IT Alcohols, uses
 Esters, uses
 Ketones, uses
 (preparation of biodegradable microparticles containing biol. active agents)
 IT Albumins, biological studies
 (preparation of biodegradable microparticles containing biol. active agents)
 IT Caseins, biological studies
 (preparation of biodegradable microparticles containing biol. active agents)
 IT Phosphazene polymers
 (preparation of biodegradable microparticles containing biol. active agents)
 IT Polyamides
 (preparation of biodegradable microparticles containing biol. active agents)
 IT Polymers, biological studies
 (preparation of biodegradable microparticles containing biol. active agents)
 IT Proteins, biological studies
 (preparation of biodegradable microparticles containing biol. active agents)
 IT Siloxanes and Silicones, biological studies
 (preparation of biodegradable microparticles containing biol. active agents)
 IT Waxes and Waxy substances
 (preparation of biodegradable microparticles containing biol. active agents)

OTHER SOURCE(S): MARPAT 123:179481
 ED Entered STN: 09 Sep 1995

AB A process for preparing biodegradable microparticles comprising a biodegradable polymeric binder and a biol. active agent is disclosed. A first phase, comprising the active agent and the polymer, and a second phase are pumped through a static mixer into a quench liquid to form microparticles containing the active agent. Preferably, a blend of at least two substantially non-toxic solvents, free of halogenated hydrocarbons, is used to dissolve or disperse the agent and dissolve the polymer. Thus, 329 g norethindrone (I) was dissolved in 770 g Medisorb 85-15 DL-lactide-glycolide copolymer in 2.2 kg Et acetate and 2.2 benzyl alc. at 65-70°, then it was filtered and maintained at 65-70°. The aqueous phase was prepared by dissolving 150 g polyvinyl alc. in 27.27 kg water and heating at 65-70° followed by addition of 810 g benzyl alc. and 1770 g Et acetate. The quench solution was prepared by dissolving 26.25 kg of Et acetate in 750 L of cold water and maintained at 2-4°. The organic phase was pumped through the static mixer at a flow rate of 909 mL/min, and the aqueous phase at a flow rate of 4500 mL/min into the quench solution. After 1 h of quench the material was passed through 90 and 25 µm screen and vacuum dried for 36 h to obtain 650 g of 30% I-loaded microparticles.

IT 100-51-6, Benzyl alcohol, uses
 (preparation of biodegradable microparticles containing biol. active agents)
 RN 100-51-6 HCAPLUS
 CN Benzenemethanol (CA INDEX NAME)

HO-CH₂-Ph

IT 26780-50-7, Glycolide-lactide copolymer
 (preparation of biodegradable microparticles containing biol. active agents)
 RN 26780-50-7 HCAPLUS
 CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with
 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1

CRN 502-97-6
 CMF C4 H4 O4

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86

10/628,984

10/628,984

IT Glycoproteins, biological studies
 (rgp; preparation of biodegradable microparticles containing biol. active agents)
 IT Pharmaceutical dosage forms
 (freeze-dried, preparation of biodegradable microparticles containing biol. active agents)
 IT Colloids
 (hydro-, preparation of biodegradable microparticles containing biol. active agents)
 IT Pharmaceutical dosage forms
 (microparticles, preparation of biodegradable microparticles containing biol. active agents)
 IT Polyethers, biological studies
 (ortho ester group-containing, preparation of biodegradable microparticles containing biol. active agents)
 IT Carboxylic acids, biological studies
 (poly-, aliphatic; preparation of biodegradable microparticles containing biol. active agents)
 IT Acetals
 (poly-, preparation of biodegradable microparticles containing biol. active agents)
 IT Polyethers, biological studies
 (polycarbonate-, preparation of biodegradable microparticles containing biol. active agents)
 IT Polycarbonates, biological studies
 (polyether-, preparation of biodegradable microparticles containing biol. active agents)
 IT Interferons
 (α, recombinant bovine; preparation of biodegradable microparticles containing biol. active agents)
 IT 50-50-0, Estradiol benzoate 58-22-0, Testosterone 78-93-3, Methyl ethyl ketone, uses 100-51-6, Benzyl alcohol, uses 141-98-6, Ethyl acetate, uses 9007-89-5, Polyvinyl alcohol 10161-34-9, Trenbolone acetate
 (preparation of biodegradable microparticles containing biol. active agents)
 IT 68-22-4, Norethindrone 144-62-7D, Oxalic acid, deriva., polymers 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 26009-03-0, Poly(glycolic acid) 26023-30-3 26100-51-6, Poly DL lactic acid 26124-68-5, Poly(glycolic acid) 26161-42-2 26780-50-7, Glycolide-lactide copolymer 26811-98-1, Poly(L-lactic acid) 38396-39-3, Bupivacaine 61128-18-5 70288-86-7, Ivermectin 80137-67-3 106266-06-2, Risperidone
 (preparation of biodegradable microparticles containing biol. active agents)

L100 ANSWER 30 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1995:640933 HCAPLUS Full-text

DOCUMENT NUMBER: 121:17955

TITLE: Method for preparing microspheres comprising a fluidized bed drying step
 Cleland, Jeffrey L.; Jones, Andrew J.; Powell, Michael Frank

PATENT ASSIGNEE(S): Genentech, Inc., USA

SOURCE: PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9511009	A1	19950427	WO 1994-US11678	19941013
W: AU, BR, CA, JP RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2172508	A1	19950427	CA 1994-2172508	19941013
CA 2172508	C	20050823		
AU 9480174	A	19950508	AU 1994-80174	19941013
EP 724433	A1	19960807	EP 1994-931369	19941013
EP 724433	B1	19981230		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 09504026	T	19970422	JP 1995-512076	19941013
JP 3841309	B2	20061101		
AT 175110	T	19990115	AT 1994-931369	19941013
US 6080429	A	20000627	US 1997-966850	19971107
PRIORITY APPLN. INFO.: US 1993-142257 A 19931022 US 1993-143313 A 19931025 WO 1994-US11678 W 19941013 US 1996-650364 B1 19960520				

ED Entered STN: 28 Jun 1995

AB A method for encapsulating an active agent in microspheres comprises (a) dissolving a polymer in an organic solvent, (b) adding active agent to produce an emulsion or suspension, (c) adding this mixture to an emulsification bath to produce microspheres, (d) hardening the microspheres, and (e) drying the microspheres in a fluidized bed. Thus, a buffered solution (154 mg/mL) of recombinant glycoprotein gp120 from HIV-1 strain MN was homogenized with a solution of DL-lactide/glycolide copolymer in CH₂Cl₂ (0.3 or 0.6 g/mL), and 10 mL of this emulsion was homogenized with 900 mL 10% poly(vinyl alc.) solution containing 1.5% CH₂Cl₂ to produce a water-in-oil-in-water emulsion, which was transferred to a hardening bath of filtered water for 1 h. The microspheres were concentrated, diafiltered, concentrated to dryness, and dried in a fluidized bed in a stream of N₂. These microspheres showed a much smaller initial burst than microspheres prepared similarly but dried by lyophilization.

IT 9002-72-6, Growth hormone
 (human), method for preparing microspheres with fluidized bed drying step

RN 9002-72-6 HCAPLUS
 CN Somatotropin (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 26780-50-7, DL-Lactide/glycolide copolymer
 (method for preparing microspheres with fluidized bed drying step)
 RN 26780-50-7 HCAPLUS
 CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with

87

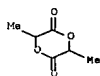
88

1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1
 CRN 502-97-6
 CMP C4 H4 O4



CM 2
 CRN 95-96-5
 CMP C6 H8 O4



IT 100-51-6, Benzyl alcohol, uses
 (solvent; method for preparing microspheres with fluidized bed drying step)
 RN 100-51-6 HCAPLUS
 CN Benzenemethanol (CA INDEX NAME)

HO—CH₂—Ph

IC ICM A61K009-16
 CC 63-6 (Pharmaceuticals)
 IT Pharmaceutical dosage forms
 (microspheres, method for preparing microspheres with fluidized bed drying step)
 IT 9002-72-6, Growth hormone
 (human; method for preparing microspheres with fluidized bed drying step)
 IT 9002-89-5, Poly(vinyl alcohol) 26780-50-7,
 DL-lactide/glycolide copolymer 141256-04-4
 (method for preparing microspheres with fluidized bed drying step)
 IT 67-64-1, Acetone, uses 75-09-2, Methylene chloride, uses
 100-51-6, Benzyl alcohol, uses 141-78-6,
 Ethyl acetate, uses
 (solvent; method for preparing microspheres with fluidized bed drying step)

89

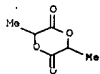
10/628,984

RN 26780-50-7 HCAPLUS
 CN 1,4-Dioxane-2,5-dione, 3,6-dimethyl-, polymer with
 1,4-dioxane-2,5-dione (9CI) (CA INDEX NAME)

CM 1
 CRN 502-97-6
 CMP C4 H4 O4



CM 2
 CRN 95-96-5
 CMP C6 H8 O4



IC ICM A61K037-43
 ICS A61K009-16; A61K009-52; B01J013-02
 CC 63-6 (Pharmaceuticals)
 IT Pharmaceutical dosage forms
 (microspheres, sustained-release, LHRH hormone in)
 IT 67-64-1, Acetone, biological studies 67-66-3, Chloroform, biological studies 75-05-8, Acetonitrile, biological studies 75-09-2, Dichloromethane, biological studies 78-93-3, Methyl ethyl ketone, biological studies 100-51-6, Benzyl alcohol, biological studies 108-88-3, Toluene, biological studies 109-99-9, Thf, biological studies 110-86-1, Pyridine, biological studies 123-91-1, Dioxane, biological studies 141-78-6, Ethyl acetate, biological studies 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 26023-30-3, Poly(lactide) 26063-00-3, Polyhydroxy butyrate 26100-51-6, Poly(lactic acid) 26354-94-9, Polyvalerolactone 26680-10-4, Poly(lactide) 26744-04-7, Polyhydroxy butyrate 26780-50-7, Poly(glycolide-lactide) 34346-01-5, Poly(lactic acid-glycolic acid) 133644-68-5
 (in preparation of prolonged-release pharmaceutical microspheres containing LHRH hormone)

» d 32-38 ibib ab ind

L100 ANSWER 32 OF 38 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights

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L100 ANSWER 31 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STM
 ACCESSION NUMBER: 1994:331162 HCAPLUS Full-text
 DOCUMENT NUMBER: 120:331162
 TITLE: Pharmaceutical microspheres for the prolonged release of the LHRH hormone and its analogs
 INVENTOR(S): Billot, Genevieve B.; Teichner, Marc M.
 PATENT ASSIGNEE(S): Rhone-Merieux, Fr.
 SOURCE: Can. Pat. Appl., 27 pp.
 CODEN: CPXKXB
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2100925	A1	19940128	CA 1993-2100925	19930720
FR 2693905	A1	19940128	FR 1993-9241	19920727
FR 2693905	B1	19940902		
AU 9342022	A	19940210	AU 1993-42022	19930719
AU 675788	B2	19970220		
EP 585151	A1	19940302	EP 1993-401874	19930720
EP 585151	B1	20000105		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE	T	20000115	AT 1993-401874	19930720
ES 2141756	T3	20000401	ES 1993-401874	19930720
JP 06087758	A	19940329	JP 1993-204578	19930727
JP 3761591	B2	20060329		
US 5540937	A	19960730	US 1993-97014	19930727

PRIORITY APPLN. INFO.:
 FR 1993-9241 A 19920727

ED Entered STN: 25 Jun 1994
 AB A process for preparing microspheres for the prolonged release of the LHRH hormone and its analogs is disclosed. Thus, 400 mg poly(DL-lactide-glycolide) was dissolved in 3.5 g of THF and LHRH hormone was gradually added thereto with stirring. The solvent was evaporated and the mass was dissolved in CH₂Cl₂ and the dispersion was injected into water containing 1% polyvinyl alc. CH₂Cl₂ was evaporated and microspheres were harvested by filtration, then washed and dried to obtain microspheres containing 8.1% LHRH hormone.
 IT 100-51-6, Benzyl alcohol, biological studies 26780-50-7, Poly(glycolide-lactide) (in preparation of prolonged-release pharmaceutical microspheres containing LHRH hormone)
 RN 100-51-6 HCAPLUS
 CN Benzenemethanol (CA INDEX NAME)

HO—CH₂—Ph

90

10/628,984

reserved on STN
 ACCESSION NUMBER: 2006174618 EMBASE Full-text
 TITLE: Mecasermin Terlica.
 AUTHOR: Norman P.
 CORPORATE SOURCE: P. Norman, Norman Consulting, 18 Pink Lane, Burnham, Bucks SL1 8JW, United Kingdom.
 peter.norman2@btinternet.com
 SOURCE: Current Opinion in Investigational Drugs, (2006) Vol. 7, No. 4, pp. 371-380. .
 Refs: 54
 ISSN: 1472-4472 CODEN: CIDREE
 COUNTRY: United Kingdom
 DOCUMENT TYPE: Journal; General Review
 FILE SEGMENT: 003 Endocrinology
 030 Pharmacology
 037 Drug Literature Index
 038 Adverse Reactions Titles
 039 Pharmacy
 052 Toxicology
 LANGUAGE: English
 SUMMARY LANGUAGE: English
 ENTRY DATE: Entered STN: 27 Apr 2006
 Last Updated on STN: 27 Apr 2006
 AB Terlica, under license from Genentech, has developed and launched mecasermin, recombinant human insulin-like growth factor-1 (rhIGF-1), for the treatment of growth failure in children with primary IGF deficiency or with growth hormone (GH) gene deletion who have developed neutralizing antibodies to GH. .COPYRG.
 The Thomson Corporation.
 CT Medical Descriptors:
 growth disorder; DT, drug therapy
 pediatrics
 protein deficiency
 gene deletion
 antibody production
 drug mechanism
 drug synthesis
 structure activity relation
 drug manufacture
 drug purity
 drug formulation
 sustained release formulation
 encapsulation
 drug release
 drug metabolism
 drug absorption
 drug bioavailability
 drug half life
 drug blood level
 drug clearance
 toxicity testing
 breast carcinoma
 drug carcinogenicity
 adrenal medulla tumor
 hypoglycemia; SI, side effect
 drug tolerability
 diabetes mellitus; DT, drug therapy
 Laron syndrome; DT, drug therapy
 lipohypertrophy; SI, side effect
 injection site hypertrophy; SI, side effect
 tympanometry

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hearing disorder: SI, side effect
snoring: SI, side effect
tonsil disease: SI, side effect
tonsil disease: SU, surgery
pharynx disease: SI, side effect
pharynx disease: SU, surgery
human
nonhuman
clinical trial
review

CT Drug Descriptors:
*recombinant somatomedin C: AE, adverse drug reaction
*recombinant somatomedin C: CT, clinical trial
*recombinant somatomedin C: AN, drug analysis
*recombinant somatomedin C: CB, drug combination
*recombinant somatomedin C: CM, drug comparison
*recombinant somatomedin C: CR, drug concentration
*recombinant somatomedin C: DV, drug development
*recombinant somatomedin C: DT, drug therapy
*recombinant somatomedin C: TO, drug toxicity
*recombinant somatomedin C: PR, pharmacaceutics
*recombinant somatomedin C: PK, pharmacokinetics
*recombinant somatomedin C: PD, pharmacology
*recombinant somatomedin C: IH, inhalational drug administration
*recombinant somatomedin C: IV, intravenous drug administration
*recombinant somatomedin C: PO, oral drug administration
*recombinant somatomedin C: SC, subcutaneous drug administration
growth hormone: EC, endogenous compound
growth hormone antibody: EC, endogenous compound
neutralizing antibody: EC, endogenous compound
phenol
benzyl alcohol
sodium chloride
polysorbate
acetic acid
somatomedin C derivative: AN, drug analysis
somatomedin C derivative: CM, drug comparison
somatomedin C derivative: DV, drug development
somatomedin C derivative: DT, drug therapy
somatomedin C derivative: PD, pharmacology
des(1-3)somatomedin C: AN, drug analysis
des(1-3)somatomedin C: CM, drug comparison
des(1-3)somatomedin C: DV, drug development
des(1-3)somatomedin C: DT, drug therapy
des(1-3)somatomedin C: PD, pharmacology
somatomedin C[leucine 3 arginine]: AN, drug analysis
somatomedin C[leucine 3 arginine]: CM, drug comparison
somatomedin C[leucine 3 arginine]: DV, drug development
somatomedin C[leucine 3 arginine]: DT, drug therapy
somatomedin C[leucine 3 arginine]: PD, pharmacology
insulin: CM, drug comparison
insulin: DT, drug therapy
insulin: PD, pharmacology
recombinant growth hormone: CT, clinical trial
recombinant growth hormone: CB, drug combination
recombinant growth hormone: CM, drug comparison
recombinant growth hormone: DT, drug therapy
recombinant growth hormone: PD, pharmacology
recombinant growth hormone: SC, subcutaneous drug administration
dexamethasone

93

streptozocin
polyglactin
microsphere
human growth hormone: CT, clinical trial
human growth hormone: CB, drug combination
human growth hormone: CM, drug comparison
human growth hormone: DT, drug therapy
unclassified drug
somazon
mkn 031
mkn 031
increlex
RN (recombinant somatomedin C) 68562-41-4; (growth hormone) 36992-73-1,
37267-05-3, 66419-50-9, 9002-72-6; (phenol) 108-95-2, 3229-70-7;
(benzyl alcohol) 100-51-6; (sodium chloride) 7647-14-5;
(polysorbate) 9005-63-4; (acetic acid) 127-08-2, 127-09-3, 64-19-7,
71-50-1; (insulin) 9004-10-8; (dexamethasone) 50-02-2; (streptozocin)
1883-66-4; (polyglactin) 26780-50-7, 34346-01-5; (human
growth hormone) 12629-01-5
CN (1) Somazon; Mkn 031; Mkn 031; Nutropin; Increlex
CO (1) Fujisawa; Genentech; Mitsubishi; Nikken; Hoffmann La Roche;
Tercica

L100 ANSWER 33 OF 38 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2005371491 EMBASE Full-text
TITLE: Semi-interpenetrating network of poly(ethylene glycol) and poly(D,L-lactide) for the controlled delivery of protein drugs
AUTHOR: Brown C.D.; Stayton P.S.; Hoffman A.S.
CORPORATE SOURCE: A.S. Hoffman, University of Washington, Department of Bioengineering, Box 352255, Seattle, WA 98195, United States. hoffman@u.washington.edu
SOURCE: Journal of Biomaterials Science, Polymer Edition, (2005) Vol. 16, No. 2, pp. 189-201.
Refs: 24
ISSN: 0920-5063 CODEN: JBSEEA
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 027 Biophysics, Bioengineering and Medical Instrumentation
037 Drug Literature Index
039 Pharmacy
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 9 Sep 2005
Last Updated on STN: 9 Sep 2005

AB We have prepared a semi-interpenetrating network (IPN) of poly(ethylene glycol) dimethacrylate (PEGDMA) with entrapped poly(D, L-lactide) (PLA) using photochemical techniques. These IPNs were developed for the controlled delivery of protein drugs such as growth factors. The PEG component draws water into the network, forming a hydrogel within the PLA matrix, controlling and facilitating release of the protein drug, while the PLA component both strengthens the PEG hydrogel and enhances the degradation and elimination of the network after the protein drug is released. The rate and extent of swelling and the resultant protein release kinetics could be controlled by varying the PEG/PLA ratio and total PLA content. These IPNs were prepared using a biocompatible benzyl benzoate/benzyl alcohol solvent system that yields a uniform, fine dispersion of the protein throughout the PEG/PLA IPN matrix. IPNs composed of high molecular mass PLA and lower PEG/PLA ratios

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exhibited lower equilibrium swelling ratios. The release of bovine serum albumin (BSA), a model protein from these IPNs was characterized by a large initial burst, regardless of the PEG/PLA ratio, due to the entrapment of residual solvent within the network. Microparticles of the PEG/PLA IPNs were also prepared using a modified Prolease® strategy. Residual solvent removal was significantly enhanced using this process. The microparticles also exhibited a significant reduction in the initial burst release of protein. Mixtures of different compositions of PEG/PLA microparticles should be useful for the delivery of a variety of protein drugs with different release kinetics from any tissue-engineering matrix. COPYRIGHT. VSP 2005.

CT Medical Descriptors:
*drug delivery system
interpenetrating network
photochemistry
methodology
drug release
hydrogel
tissue engineering
drug formulation
article
priority journal
Drug Descriptors:
*macrogol: PR, pharmacaceutics
*polyglactin: PR, pharmacaceutics
*bovine serum albumin: PR, pharmacaceutics
*drug carrier: PR, pharmacaceutics
growth factor
ethylene glycol dimethacrylate
polymer
benzyl benzoate
benzyl alcohol
solvent
RN (macrogol) 25322-68-3; (polyglactin) 26780-50-7, 34346-01-5;
(ethylene glycol dimethacrylate) 97-90-5; (benzyl benzoate) 120-51-4,
8022-66-0; (benzyl alcohol) 100-51-6
NP Prolease
CO Birmingham Polymers (United States); Aldrich (United States); Sigma (United States)

L100 ANSWER 34 OF 38 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2004349435 EMBASE Full-text
TITLE: Synthesis of novel dendrimer-like star block copolymers with definite numbers of arms by combination of ROP and ATRP.
AUTHOR: Zhao Y.; Shuai X.; Chen C.; Xi F.
CORPORATE SOURCE: F. Xi, Center for Molecular Science, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100080, China. xifu@iccas.ac.cn
SOURCE: Chemical Communications, (21 Jul 2004) Vol. 10, No. 14, pp. 1608-1609.
Refs: 16
ISSN: 1359-7345 CODEN: CHCOFS
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 9 Sep 2004
Last Updated on STN: 9 Sep 2004

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AB Well-defined biodegradable dendrimer-like star block copolymers with up to 24 arms were successfully synthesized by combination of living ring-opening polymerization (ROP) and atom transfer radical polymerization (ATRP) on the basis of dendritic benzyl alcohols.

CT Medical Descriptors:
*ring opening metathesis polymerization
*atom transfer radical polymerization
synthesis
molecular size
chemical structure
article
Drug Descriptors:
*dendrimer
*copolymer
benzyl alcohol
1,3,5 tris(4 hydroxyphenoxy)benzene
benzene derivative
polyglactin
unclassified drug
RN (benzyl alcohol) 100-51-6; (polyglactin) 26780-50-7,
34346-01-5

L100 ANSWER 35 OF 38 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2003244271 EMBASE Full-text
TITLE: Use of 1,4-dioxan for preparation of bupivacaine loaded PLGA microspheres with an o/w emulsion extraction process.
AUTHOR: Sznitowska M.; Placzek M.
CORPORATE SOURCE: Dr. M. Sznitowska, Dept. of Pharmaceutical Technology, Medical University of Gdansk, ul. Hallera 107, 80-416 Gdansk, Poland. msznitow@farmacja.amg.gda.pl
SOURCE: Pharmazie, (1 Jun 2003) Vol. 58, No. 6, pp. 437-438.
Refs: 6
ISSN: 0031-7144 CODEN: PHARAT
COUNTRY: Germany
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 037 Drug Literature Index
039 Pharmacy
LANGUAGE: English
ENTRY DATE: Entered STN: 3 Jul 2003
Last Updated on STN: 3 Jul 2003

CT Medical Descriptors:
emulsion
extraction
precipitation
drug solubility
encapsulation
drug formulation
article
Drug Descriptors:
*dioxane: PR, pharmacaceutics
*bupivacaine: PR, pharmacaceutics
microsphere: PR, pharmacaceutics
water oil cream: PR, pharmacaceutics
polyglactin: PR, pharmacaceutics
benzyl alcohol: PR, pharmacaceutics
dichloromethane: PR, pharmacaceutics
dimethyl sulfoxide: PR, pharmacaceutics
RN (dioxane) 123-91-1; (bupivacaine) 18010-40-7, 2180-92-9, 55750-21-5;

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(poly(lactin)) 26780-50-7, 34346-01-5; (benzyl alcohol)
100-51-6; (dichloromethane) 75-09-2; (dimethyl sulfoxide)
67-68-5
CO Polfa (Poland); Boehringer Ingelheim (Germany); Gliwice (Poland);
Fluka (Switzerland)

L100 ANSWER 36 OF 38 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2002206309 EMBASE Full-text
TITLE: Investigation of polymeric nanoparticles as carriers of enalaprilat for oral administration.
AUTHOR: Ahlin P.; Kristl J.; Kristl A.; Vrečer F.
CORPORATE SOURCE: J. Kristl, University of Ljubljana, Faculty of Pharmacy, Akerceva 7, 1000 Ljubljana, Slovenia. julijana.kristl@ffa.uni-lj.si
SOURCE: International Journal of Pharmaceutics, (4 Jun 2002) Vol. 239, No. 1-2, pp. 113-120. Refs: 12
ISSN: 0378-5173 CODEN: IJPHDE
PUBLISHER IDENT.: S 0378-5173(02)00076-5
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 037 Drug Literature Index
039 Pharmacy
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 27 Jun 2002
Last Updated on STN: 27 Jun 2002

AB Enalaprilat is a typical angiotensin-converting enzyme inhibitor and is very poorly absorbed from the gastrointestinal tract. The aim of this study was to design and characterize poly-(lactide-co-glycolide) (PLGA) and polymethylmethacrylate (PMMA) nanoparticles containing enalaprilat and to evaluate the potential of these colloidal carriers for the transport of drugs through the intestinal mucosa. Nanoparticle dispersions were prepared by the emulsification-diffusion method and characterized according to particle size, zeta potential, entrapment efficiency and physical stability. Effective permeabilities through rat jejunum of enalaprilat in solution and in enalaprilat-loaded nanoparticles were compared using side-by-side diffusion chambers. The solubility of enalaprilat is very low in many acceptable organic solvents, but in benzyl alcohol is sufficient to enable the production of nanoparticles by the emulsification-diffusion process. The diameters of drug-loaded PMMA and PLGA nanoparticles were 297 and 204 nm, respectively. The concentration of the stabilizer polyvinyl alcohol (PVA) in dispersion has an influence on particle size but not on drug entrapment. The type of polymer has a decisive influence on drug content - 7 and 13% for PMMA and PLGA nanoparticles, respectively. In vitro release studies show a biphasic release of enalaprilat from nanoparticle dispersions - fast in the first step and very slow in the second. The apparent permeability coefficient across rat jejunum of enalaprilat entrapped in PLGA nanoparticles is not significantly improved compared with enalaprilat in solution. .COPYROT. 2002 Elsevier Science B.V. All rights reserved.
CT Medical Descriptors:
*drug delivery system
*intestinal absorption
*intestinal mucosa
nanoparticle
dispersion
emulsion
diffusion
particle size

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zeta potential
drug stability
jejunum
drug solubility
drug release
drug penetration
drug transport
nonhuman
male
rat
controlled study
animal tissue
article
priority journal
Drug Descriptors:
*enalaprilat: PR, pharmaceutics
*enalaprilat: PO, oral drug administration
*poly(lactin): PR, pharmaceutics
*poly(methyl methacrylate): PR, pharmaceutics
drug carrier: PR, pharmaceutics
organic solvent
benzyl alcohol
stabilizing agent
polyvinyl alcohol
resomer rg 502
eudragit #100
RN (enalaprilat) 76420-72-9; (polyglactin) 26780-50-7, 34346-01-5; (poly(methyl methacrylate)) 39320-98-4, 9008-29-1; (benzyl alcohol) 100-51-6; (polyvinyl alcohol) 37280-95-3, 9002-89-5
CN (1) Resomer rg 502; (2) Eudragit #100
CO (1) Boehringer Ingelheim (Germany); (2) Roehm Pharma (Germany); Krka (Slovenia)

L100 ANSWER 37 OF 38 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 1998381177 EMBASE Full-text
TITLE: FDA perspective on peptide formulation and stability issues.
AUTHOR: Niu C.-H.; Chiu Y.-Y.
CORPORATE SOURCE: C.-H. Niu, Office of New Drug Chemistry, Ctr. for Drug Evaluation and Res., Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, United States
SOURCE: Journal of Pharmaceutical Sciences, (1998) Vol. 87, No. 11, pp. 1331-1334. Refs: 24
ISSN: 0022-3549 CODEN: JPMSAE
COUNTRY: United States
DOCUMENT TYPE: Journal; Conference Article
FILE SEGMENT: 027 Biophysics, Bioengineering and Medical Instrumentation
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 17 Dec 1998
Last Updated on STN: 17 Dec 1998

AB Traditionally, peptide drugs are prepared as sterile solutions and administered to patients by daily injection. However, this form of drug delivery causes pain and inconvenience to patients and thus has been poorly accepted. In addition to improving patient compliance, many novel delivery

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systems have been developed to address the need for prolonged, localized (targeted), or pulsatile drug action. Examples include, but are not limited to oral, nasal, or long-acting controlled release injectable dosage forms; a number of them have been approved by FDA recently. The unique characteristics and the relevant regulatory issues with respect to each type of delivery system are presented.
CT Medical Descriptors:
*drug formulation
*drug stability
protein analysis
protein stability
drug delivery system
pulsatile flow
dog
drug dosage form
food and drug administration
human
human tissue
human cell
oral drug administration
conference paper
Drug Descriptors:
*desmopressin: PR, pharmaceutics
*desmopressin: PK, pharmacokinetics
*desmopressin: PD, pharmacology
*octreotide: PR, pharmaceutics
*octreotide: PK, pharmacokinetics
*octreotide: PD, pharmacology
*leuporelin: PR, pharmaceutics
*leuporelin: PK, pharmacokinetics
*leuporelin: PD, pharmacology
*nafarelin acetate: DO, drug dose
*nafarelin acetate: PR, pharmaceutics
*nafarelin acetate: PK, pharmacokinetics
*nafarelin acetate: PD, pharmacology
phenol derivative
meta cresol
benzyl alcohol
polyglactin: PR, pharmaceutics
organic solvent: PR, pharmaceutics
diluent: PR, pharmaceutics
RN (desmopressin) 16679-58-6; (octreotide) 83150-76-9; (leuporelin) 53714-56-0, 74381-53-6; (nafarelin acetate) 76932-60-0; (meta cresol) 108-39-4; (benzyl alcohol) 100-51-6; (polyglactin) 26780-50-7, 34346-01-5
CN Sandostatin; Lupron; Synarel

L100 ANSWER 38 OF 38 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 2006:189729 BIOSIS Full-text
DOCUMENT NUMBER: PREV200600189924
TITLE: Formulation and evaluation of sustained release microspheres of poly-lactide-co-glycolide containing tamoxifen citrate.
AUTHOR(S): Sehra, S.; Dhake, A. S. (Reprint Author)
CORPORATE SOURCE: Guru Jambheshwar Univ, Dept Pharmaceut Sci, Hisar 125001, Haryana, India asdhake@yahoo.co.in
SOURCE: Journal of Microencapsulation, (AUG 2005) Vol. 22, No. 5, pp. 521-528.

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DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 15 Mar 2006
Last Updated on STN: 15 Mar 2006
AB Tamoxifen citrate, a non-steroidal anti-oestrogen has potential applications in treatment of breast cancer. Biodegradable microspheres of PLGA 65: 35 were prepared by o/w emulsification solvent evaporation method. In this study, different batches of varying concentration of drug, polymer, polyvinyl alcohol and solvent were prepared. All the batches prepared were characterized by particle size distribution, encapsulation efficiency and in vitro release behaviour. Drug, polymer and PVA concentrations were varied to obtain optimum release profile for sustaining the action of drug.
CC Biochemistry studies - General 10060
Pathology - Therapy 12512
Reproductive system - Physiology and biochemistry 16504
Reproductive system - Pathology 16506
Pharmacology - General 22002
Pharmacology - Clinical pharmacology 22005
Pharmacology - Endocrine system 22016
Neoplasms - Pathology, clinical aspects and systemic effects 24004
Neoplasms - Therapeutic agents and therapy 24008
IT Major Concepts
Pharmacology; Biochemistry and Molecular Biophysics; Tumor Biology; Reproductive System (Reproduction)
IT Diseases
Breast cancer; neoplastic disease, reproductive system disease/female, drug therapy
Breast Neoplasms (MeSH)
IT Chemicals & Biochemicals
polyvinyl alcohol [PVA]; solvent; tamoxifen citrate; antineoplastic-drug, antiestrogen-drug; poly-lactide-co-glycolide; drug delivery system, sustained release microsphere
IT Miscellaneous Descriptors
encapsulation efficiency
ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human (common)
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates
RN 9002-89-5 (polyvinyl alcohol)
9002-89-5 (PVA)
54965-24-1 (tamoxifen citrate)
26780-50-7 (poly-lactide-co-glycolide)

100

→ d que 160

L3 1 SEA FILE=REGISTRY ABB=ON PLU=ON "DL-LACTIDE-GLYCOLIDE COPOLYMER"/CN
L7 1 SEA FILE=REGISTRY ABB=ON PLU=ON "BENZYL ALCOHOL"/CN
L15 4184 SEA FILE=HCAPLUS ABB=ON PLU=ON L3
L16 24290 SEA FILE=HCAPLUS ABB=ON PLU=ON L7
L55 15103 SEA FILE=HCAPLUS ABB=ON PLU=ON CHEN, G7/AU
L56 333 SEA FILE=HCAPLUS ABB=ON PLU=ON HOUSTON, P7/AU
L57 111 SEA FILE=HCAPLUS ABB=ON PLU=ON KLEINER, L7/AU
L58 4401 SEA FILE=HCAPLUS ABB=ON PLU=ON WRIGHT, J7/AU
L59 32 SEA FILE=HCAPLUS ABB=ON PLU=ON (L55 OR L56 OR L57 OR L58) AND L15
L60 7 SEA FILE=HCAPLUS ABB=ON PLU=ON L59 AND L16

→ d que 172

L3 1 SEA FILE=REGISTRY ABB=ON PLU=ON "DL-LACTIDE-GLYCOLIDE COPOLYMER"/CN
L10 1 SEA FILE=REGISTRY ABB=ON PLU=ON L3 AND EMBASE/LC
L62 4395 SEA FILE=EMBASE ABB=ON PLU=ON L10
L65 2953 SEA FILE=EMBASE ABB=ON PLU=ON CHEN, G7/AU
L66 58 SEA FILE=EMBASE ABB=ON PLU=ON HOUSTON, P7/AU
L67 6 SEA FILE=EMBASE ABB=ON PLU=ON KLEINER, L7/AU
L68 3917 SEA FILE=EMBASE ABB=ON PLU=ON WRIGHT, J7/AU
L69 19 SEA FILE=EMBASE ABB=ON PLU=ON (L65 OR L66 OR L67 OR L68) AND L62
L71 79171 SEA FILE=EMBASE ABB=ON PLU=ON "DRUG DELIVERY SYSTEM"-PFT, NT/CT
L72 4 SEA FILE=EMBASE ABB=ON PLU=ON L69 AND L71

→ d que 184

L3 1 SEA FILE=REGISTRY ABB=ON PLU=ON "DL-LACTIDE-GLYCOLIDE COPOLYMER"/CN
L9 1 SEA FILE=REGISTRY ABB=ON PLU=ON L3 AND BIOSIS/LC
L74 831 SEA FILE=BIOSIS ABB=ON PLU=ON L9
L80 4052 SEA FILE=BIOSIS ABB=ON PLU=ON CHEN, G7/AU
L81 69 SEA FILE=BIOSIS ABB=ON PLU=ON HOUSTON, P7/AU
L82 12 SEA FILE=BIOSIS ABB=ON PLU=ON KLEINER, L7/AU
L83 5489 SEA FILE=BIOSIS ABB=ON PLU=ON WRIGHT, J7/AU
L84 3 SEA FILE=BIOSIS ABB=ON PLU=ON (L80 OR L81 OR L82 OR L83) AND L74

→ d que 193

L3 1 SEA FILE=REGISTRY ABB=ON PLU=ON "DL-LACTIDE-GLYCOLIDE COPOLYMER"/CN
L11 1 SEA FILE=REGISTRY ABB=ON PLU=ON L3 AND DRUGU/LC
L86 1 SEA FILE=DRUGU ABB=ON PLU=ON L11
L89 388 SEA FILE=DRUGU ABB=ON PLU=ON CHEN, G7/AU
L90 6 SEA FILE=DRUGU ABB=ON PLU=ON HOUSTON, P7/AU
L91 602 SEA FILE=DRUGU ABB=ON PLU=ON WRIGHT, J7/AU
L92 2 SEA FILE=DRUGU ABB=ON PLU=ON KLEINER, L7/AU
L93 0 SEA FILE=DRUGU ABB=ON PLU=ON (L89 OR L90 OR L91 OR L92) AND L86

→ d que 199

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RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VM, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG, BM, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2004-638535P P 20041223
US 2005-305939 A 20051219

ED Entered STN: 30 Jun 2006

AB The present invention relates to methods and depot emulsion compns. for delivery of vis co-supplements. For example, injectable emulsion was prepared containing poly(caprolactone-glycolic acid-L-lactic acid) 40% dissolved in benzyl benzoate 60%.

INCL 424400000; 424486000; 514054000

CC 63-6 (Pharmaceuticals)
IT 56-81-5, Glycerol, uses 64-17-5, Ethanol, uses 67-68-5, Dimethyl sulfoxide, uses 77-92-9D, Citric acid, ester 93-58-3, Methyl benzoate 93-89-0, Ethyl benzoate 94-46-2, Isoamyl benzoate 100-51-6, Benzyl alcohol, uses 102-76-1, Triacetin 108-32-7, Propylene carbonate 112-53-8, Lauryl alcohol 112-80-1, Oleic acid, uses 120-50-3, Isobutyl benzoate 120-51-4, Benzyl benzoate 136-60-7, Butyl benzoate 774-65-2, tert-Butyl benzoate 872-50-4, N-Methylpyrrolidone, uses 939-48-0, Isopropyl benzoate 2315-68-6, n-Propyl benzoate 3306-36-3, sec-Butyl benzoate 6283-92-7, Lauryl lactate 25322-68-3, Polyethylene glycol 31692-85-0, Glycofurool (emulsion composition comprising polymer and hyaluronate)

IT 50-21-5D, Lactic acid, polymer 79-14-1D, Glycolic acid, polymer 110-15-6D, Succinic acid, deriva., polymers 9004-61-9, Hyaluronic acid 9005-63-4, Polyoxethylene sorbitan 9005-64-5, Tween 20 9005-65-6, Tween 80 9067-32-7, Sodium hyaluronate 24968-12-5, Polybutylene terephthalate 24980-41-4, Poly(caprolactone) 25248-42-4, Poly(caprolactone) 26062-94-2, Polybutylene terephthalate 26760-59-7, RESOMER R0502 31621-87-1, Polydioxanone 78644-42-5, Poly(malic acid) 106392-12-5, Ethylene oxide-polyene oxide block copolymer 637744-27-5 691397-13-4, Pluronic F68 (emulsion composition comprising polymer and hyaluronate)

L101 ANSWER 2 OF 16 HCAPLUS COPYRIGHT 2007 ACS ON STN DUPLICATE 2

ACCESSION NUMBER: 2005:471920 HCAPLUS Full-text

DOCUMENT NUMBER: 143:13333

TITLE: Excipients in drug delivery vehicles for depot gels

INVENTOR(S): Chen, Guohua; Priebe, David T.

PATENT ASSIGNEE(S): Alta Corporation, USA

SOURCE: PCT Int. Appl., 44 pp.

CODEN: PIXX02

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005048989	A1	20050602	WO 2004-US37606	20041112
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,				

103

L94 17635 SEA CHEN, G7/AU
L95 457 SEA HOUSTON, P7/AU
L96 14372 SEA WRIGHT, J7/AU
L97 110 SEA KLEINER, L7/AU
L98 32 SEA (L94 OR L95 OR L96 OR L97) AND LACTID7(4A) GLYCOLID7
L99 8 SEA L98 AND BENZYL(W) ALCOHOL7

→ dup rem 160 172 184 193 199

L93 HAS NO ANSWERS

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PROCESSING COMPLETED FOR L60
PROCESSING COMPLETED FOR L72
PROCESSING COMPLETED FOR L84
PROCESSING COMPLETED FOR L93
PROCESSING COMPLETED FOR L99
L101 16 DUP REM L60 L72 L84 L93 L99 (6 DUPLICATES REMOVED)
ANSWERS '1-7' FROM FILE HCAPLUS
ANSWERS '8-11' FROM FILE EMBASE
ANSWERS '12-13' FROM FILE BIOSIS
ANSWERS '14-16' FROM FILE WPXI

→ d 1-7 ibib ed ab hitind

L101 ANSWER 1 OF 16 HCAPLUS COPYRIGHT 2007 ACS ON STN DUPLICATE 1
ACCESSION NUMBER: 2006:635389 HCAPLUS Full-text
DOCUMENT NUMBER: 145:90047
TITLE: Emulsion composition comprising polymer and hyaluronate
INVENTOR(S): Chan, Guohua; Chan, Edwin; Rosenblatt, Joel
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 6 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006140998	A1	20060629	US 2005-305939	20051219
WO 2006071694	A1	20060706	WO 2005-US46446	20051220
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RE, RO, RU, SC, SD, SE, SG, SK, SL, SM, SN, ST, SV, SY, TD, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2005281879	A1	20051222	US 2004-985116	20041110
AU 2004291077	A1	20050602	AU 2004-291077	20041112
CA 2545913	A1	20050602	CA 2004-2545913	20041112
EP 1691765	A1	20060823	EP 2004-819090	20041112
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
CN 1889925	A	20070103	CN 2004-60035672	20041112
NO 2006002781	A	20060814	NO 2006-2781	20060614

PRIORITY APPLN. INFO.: US 2003-519972P P 20031114

US 2004-985116 A 20041110

WO 2004-US37606 W 20041112

ED Entered STN: 03 Jun 2005

AB Injectable depot gel compns. and kits that provide an excipient for modulating a release rate and stabilizing beneficial agents are provided. The gel compns. comprise biodegradable, bioerodible polymers and water-immiscible solvents in ams. effective to plasticize the polymers and form gels with the polymers. Suitable excipients include pH modifiers, reducing agents, and antioxidants. A gel composition was prepared containing glycolide-lactide copolymer.

IC ICM A61K009-14

ICS A61P013-00

CC 63-6 (Pharmaceuticals)

IT 50-81-7, Ascorbic acid, biological studies 52-90-4, L-Cysteine, biological studies 56-81-5, Glycerol, biological studies 57-55-6, Propylene glycol, biological studies 58-95-7, α-Tocopherol acetate 59-02-9, α-Tocopherol 50-01-5, Tributyrin 62-54-4, Calcium acetate 63-68-3, L-Methionine, biological studies 67-68-5, Dmsc, biological studies 68-12-2, Dmf, biological studies 75-21-8, Oxirane, biological studies 75-56-9, Methyloxirane, biological studies 77-89-4, Acetyl triethyl citrate 77-93-0, Triethyl citrate 77-94-1, Tributyl citrate 78-40-0, Triethyl phosphate 78-93-3, Mek, biological studies 79-20-9, Methyl acetate 84-66-2, Diethyl phthalate 87-91-2, Diethyl tartrate 94-13-3, Propylparaben 96-48-0, Ethyl acetate 96-49-1, Ethylene carbonate 97-64-3, Ethyl lactate 100-51-5, Benzyl alcohol, biological studies 102-76-1, Triacetin 105-60-2, Caprolactam, biological studies 107-21-1, Ethylene glycol, biological studies 108-32-7, Propylene carbonate 109-99-9, Thf, biological studies 111-87-5, 1-Octanol, biological studies 112-80-1, Oleic acid, biological studies 120-51-4, Benzyl benzoate 121-79-9, Propyl gallate 128-37-0, Bht, biological studies 128-39-2, 2,6-Di-tert-butylphenol 137-66-6, Ascorbyl palmitate 141-43-5, Ethanolamine, biological studies 141-78-6, Ethyl acetate, biological studies 142-17-6, Calcium oleate 142-72-3, Magnesium acetate 471-34-1, Calcium carbonate, biological studies 546-93-0, Magnesium carbonate 547-66-0, Magnesium oxalate 557-07-3, Zinc oleate 557-34-6, Zinc acetate 563-72-4 616-45-5.

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2-Pyrrolidone 814-80-2, Calcium lactate 831-61-8, Ethyl gallate 872-50-4, N-Methyl-2-pyrrolidone, biological studies 1034-01-1, Octyl gallate 1166-52-5, Leuryl gallate 1300-71-6, Dimethylphenol 1305-62-0, Calcium hydroxide, biological studies 1309-42-8, Magnesium hydroxide 1398-61-4, Chitin 1406-18-4, Vitamin E 1421-63-2, Trihydroxybutyrophene 1555-53-9, Magnesium oleate 2474-72-8D, Hydroxyquinone, butylated 3079-28-5, Decyl methyl sulfoxide 3486-35-9, Zinc carbonate 4740-78-7, 1,3-Dioxan-5-ol 5464-28-8, 1,3-Dioxolane-4-methanol 7344-42-5, Zinc maleate 7757-86-0, Magnesium hydrogen phosphate 7757-93-9, Monocalcium phosphate 7758-23-8, Monocalcium phosphate 7779-90-0, Zinc phosphate 9003-29-6, Polybutene 9001-39-8, Pvp 9004-61-9, Hyaluronic acid 9012-76-4, Chitosan 10043-83-1, Magnesium phosphate 10103-46-5, Calcium phosphate 14332-60-6, Zinc hydrogen phosphate 16039-53-5, Zinc lactate 18917-93-6, Magnesium lactate 22329-43-7, Magnesium maleate 23693-40-3, Zinc oxalate 24968-12-5, Polybutylene terephthalate 24980-41-4, Polycaprolactone 25013-16-5, Bha 25248-42-4, Polycaprolactone 25322-68-3, Peg 25395-31-7, Diacetin 25795-42-0, Cepham 26009-03-0, Polyglycolide 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26062-94-2, Polybutylene terephthalate 26161-42-2, 26202-08-4, Polyglycolide 26680-50-7, Polylactide 26780-50-7, Lactide-glycolide copolymer 29223-92-5, 30846-39-0, Glycolide-L-lactide copolymer 31621-87-1, Polydioxanone 33135-50-1, Poly(L-lactide) 34938-90-4, Calcium maleate 43070-85-5, Hydroxyoumarin 59227-89-3, Azone 70524-20-8, Caprolactone-lactide copolymer 78644-42-5, Poly(malic acid)

(excipients in drug delivery vehicles for depot gels)
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L101 ANSWER 3 OF 16 HCAPLUS COPYRIGHT 2007 ACS ON STN DUPLICATE 3

ACCESSION NUMBER: 2004:1080785 HCAPLUS Full-text

DOCUMENT NUMBER: 142:43835

TITLE: Implantable elastomeric depot compositions

INVENTOR(S): Chen, Guohua; Houston, Paul; Kleiner, Lothar; Nathan, Aruna; Rosenblatt, Joel

PATENT ASSIGNER(S): Alza Corporation, USA

SOURCE: PCT Int. Appl., 83 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004108111	A1	20041216	WO 2004-US17004	20040528
W:	AR, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SN, SV, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MM, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			

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PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG
AU 2004245022 A1 20041216 AU 2004-245022 20040528
CA 2527664 A1 20041216 CA 2004-2527664 20040528
US 2005079202 A1 20050414 US 2004-857609 20040528
EP 1643968 A1 20060412 EP 2004-753764 20040528
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
BR 2004010953 A 20060627 BR 2004-10953 20040528
CN 1822816 A 20060823 CN 2004-80019926 20040528
NO 200506200 A 20060209 NO 2005-6200 20051227
PRIORITY APPLN. INFO.: US 2003-474874P P 20030530

WO 2004-US17004 W 20040528

ED Entered STN: 17 Dec 2004

AB Methods and compns. for systemically or locally administering a beneficial agent to a subject are described, and include, for example, implantable elastomeric depot compns. that can be injected into a desired location and which can provide controlled release of a beneficial agent over a prolonged duration of time. The compns. include a biocompatible, elastomeric polymer, a biocompatible solvent having low water miscibility that forms an elastomeric viscous gel with the polymer and limits water uptake by the implant, and a beneficial agent. A ϵ -caprolactone-glycolide-L-lactide copolymer was prepared and its viscosity determined. Drug loading of the implant materials was carried out with human growth hormone.

IC ICM A61K009-00

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 35, 39

IT 91-89-0, Ethyl benzoate 100-51-6, Benzyl alcohol, processes

120-51-4, Benzyl benzoate

(implantable elastomeric depot compns.)

IT 1398-61-4, Chitin 9003-39-8, Pvp 9004-61-9, Hyaluronic acid

9012-76-4, Chitosan 24980-41-4, Polycaprolactone 25248-42-4,

Polycaprolactone 25322-68-3, Peg 26009-03-0, Polyglycolide

26023-30-3, Polylactide 26202-08-4, Polyglycolide 26680-50-4,

Polylactide 26780-50-7, Glycolide-lactide copolymer

27083-66-5, Poly(propylene fumarate) 29223-92-5 31621-87-1,

Poly(dioxanone) 78644-42-5, Poly(malic acid)

(implantable elastomeric depot compns.)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L101 ANSWER 4 OF 16 HCAPLUS COPYRIGHT 2007 ACS ON STN DUPLICATE 4

ACCESSION NUMBER: 2004:2663 HCAPLUS Full-text

DOCUMENT NUMBER: 140:65189

TITLE: Short duration depot formulations containing

polyesters

INVENTOR(S): Chen, Guohua; Houston, Paul; Kleiner, Lothar; Nathan, Aruna; Rosenblatt, Joel

PATENT ASSIGNER(S): Alza Corporation, USA

SOURCE: PCT Int. Appl., 91 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003041757	A2	20030522	WO 2002-US36716	20021114
WO 2003041757	A3	20030912		
W:	AR, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MM, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG			
CA 2467239	A1	20030522	CA 2002-2467239	20021114
US 2003180364	A1	20030925	US 2002-295603	20021114
US 2004024069	A1	20040205	US 2002-295814	20021114
BR 2002065987	A	20040210	BR 2002-6987	20021114
CA 2494342	A1	20040212	CA 2002-2494342	20021114
WO 2004013703	A1	20040212	WO 2002-US36538	20021114
W:	AR, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MM, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG			
AU 2002359397	A1	20040223	AU 2002-359397	20021114
EP 1446101	A2	20040818	EP 2002-793942	20021114
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK			
EP 1526835	A1	20050504	EP 2002-793932	20021114
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK			
BR 2002015843	A	20050607	BR 2002-15843	20021114
JP 2005519873	T	20050707	JP 2003-543644	20021114
CN 1668276	A	20050914	CN 2002-829641	20021114
JP 2006503004	T	20060126	JP 2004-525951	20021114
NO 2003003178	A	20030904	NO 2003-3178	20030711
NO 2005001029	A	20050225	NO 2005-1029	20050225
PRIORITY APPLN. INFO.:			US 2001-336307P	P 20011114
			US 2002-399882P	P 20020731
			US 2002-339882P	P 20020731

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WO 2004000269 A1 20031231 WO 2003-US19762 20030625
W: AR, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MM, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG
CA 2492047 A1 20031231 CA 2003-2492047 20030625
AU 2003245643 A1 20040106 AU 2003-245643 20030625
EP 1515697 A1 20050323 EP 2003-739271 20030625
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
BR 2003012033 A 20050426 BR 2003-12033 20030625
CN 1671357 A 20050921 CN 2003-817612 20030625
JP 200533081 T 20051104 JP 2004-516150 20030625
NO 2005000366 A 20050323 NO 2005-366 20050124
PRIORITY APPLN. INFO.: US 2002-391867P P 20020625

WO 2003-US19762 W 20030625

ED Entered STN: 02 Jan 2004

AB Methods and compns. for systemically or locally administering by implantation a beneficial agent to a subject are described, and include, for example, depot gel compns. that can be injected into a desired location and which can provide controlled release of a beneficial agent over a short duration of time. The compns. include a low mol. weight biocompatible polymer, a biocompatible solvent having low water miscibility that forms a viscous gel with the polymer and limits water uptake by the implant, and a beneficial agent. Examples include a depot gel prepared from glycolide-lactide copolymer and human growth hormone particles preparation

IC ICM A61K009-00

ICS A61K047-10; A61K047-14

CC 63-6 (Pharmaceuticals)

IT 91-89-0, Ethyl benzoate 100-51-6, Benzyl alcohol, biological

studies 120-51-4, Benzyl benzoate

(short duration depot formulations containing polyesters)

IT 1398-61-4, Chitin 9003-39-8, Pvp 9004-61-9, Cellulose, biological

studies 9004-61-9, Hyaluronic acid 9012-76-4, Chitosan

12629-01-5, Human growth hormone 24980-41-4, Polycaprolactone

25248-42-4, Polycaprolactone 25322-68-3, Peg 26009-03-0,

Polyglycolide 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)]

26161-42-2, Polyglycolide 26680-50-4, Polylactide

26780-50-7, Glycolide-lactide copolymer 33135-50-1,

Poly(L-lactide) 34346-01-5, Glycolic acid-lactic acid copolymer

38396-39-3, Bupivacaine 78644-42-5, Poly(malic acid)

(short duration depot formulations containing polyesters)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L101 ANSWER 5 OF 16 HCAPLUS COPYRIGHT 2007 ACS ON STN DUPLICATE 5

ACCESSION NUMBER: 2003:396751 HCAPLUS Full-text

DOCUMENT NUMBER: 138:130977

TITLE: Catheter injectable depot compositions containing

polymers

107

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WO 2002-US36538 W 20021114
WO 2002-US36716 W 20021114

OTHER SOURCE(S):

MARPAT 138:390977

ED Entered STN: 23 May 2003

AB Catheter injectable depot compns. are provided that include a bioerodible, biocompatible polymer, a solvent having miscibility in water of 5% at 25°, in an amount effective to plasticize the polymer and form a gel therewith, a thixotropic agent, and a beneficial agent. The solvent comprises an aromatic alc., an ester of an aromatic acid, an aromatic ketone, or mixts. thereof. The compns. are have substantially improved the shear thinning behavior and reduced injection force, rendering the compns. readily implanted beneath a patient body surface by injection. A vehicle comprising 50% Resomer RG502 and 50% solvent (benzyl alc.) was prepared. Significant shear thinning behavior was observed when benzyl alc. was used as the solvent in contrast to formulations using benzyl benzoate.

IC ICM A61L029-00

CC 63-6 (Pharmaceuticals)

IT 65-85-0D, Benzoic acid, aralkyl esters 93-89-0, Ethyl benzoate 100-51-6, Benzyl alcohol, biological studies 120-51-4, Benzyl benzoate 1398-61-4, Chitin 9002-72-6, Growth hormone 9003-39-8, Polyvinylpyrrolidone 9004-61-9, Hyaluronic acid 9012-76-4, Chitosan 11096-26-7, Erythropoietin 18010-40-7, Bupivacaine hydrochloride 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 25322-68-3, Polyethylene glycol 26009-03-0, Polyglycolide 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26202-08-4, Polyglycolide 26680-10-4, Polylactide 26780-50-7, Glycolide-lactide copolymer 34346-01-5, Resomer RG502 61912-98-9, IGF 62031-54-3, PGP 62229-50-9, EGF 62683-29-8, Colony stimulating factor 78644-42-5, Poly(malic acid) 78666-19-0, Poly(malic acid), SRU 81627-83-0, Macrophage colony stimulating factor 83869-56-1, GM-CSF 127464-60-2, Vascular endothelial growth factor 143011-72-7, Granulocyte colony stimulating factor 250740-90-0, Angiopoietin 352423-07-5, Placenta growth factor (catheter injectable depot compns. containing polymers)

L101 ANSWER 6 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:473116 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 141:28680

TITLE: Sustained release dosage forms of anesthetics for pain management
INVENTOR(S): Chen, Guohua; Priebe, David T.; Bannister, Roy; Houston, Paul; Kleiner, Lothar Walter

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 24 pp., Cont.-in-part of U.S. Pat. Appl. 2004 1,859.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004109893	A1	20040610	US 2003-699521	20031031
US 2004001889	A1	20040101	US 2003-608969	20030625
CA 2530357	A1	20050203	CA 2003-251057	20031031
WO 2005009408	A2	20050203	WO 2003-US34763	20031031

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INVENTOR(S):

and aromatic alcohols
Chen, Guohua; Houston, Paul
Ricky; Kleiner, Lothar Walter;

PATENT ASSIGNEE(S): Wright, Jeremy Corwin

SOURCE: PCT Int. Appl., 89 pp.

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003041684	A2	20030522	WO 2002-US36715	20021114
WO 2003041684	A3	20030912		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, UA, UG, US, VU, YU, ZA, ZM, ZW

RM: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG

CA 2466632 A1 20030522 CA 2002-246632 20021114
US 2003170289 A1 20030911 US 2002-295527 20021114
BR 2002006984 A 20040203 BR 2002-6984 20021114
EP 1446100 A2 20040818 EP 2002-793941 20021114

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK, JP 2005514349 T 20050519 JP 2003-543571 20021114
BR 2002015843 A 20050607 BR 2002-15843 20021114
CN 1703197 A 20051130 CN 2002-827028 20021114
NO 2003003177 A 20030904 NO 2003-3177 20030711
ZA 2003006284 A 20050214 ZA 2003-6284 20030813
ZA 2003006286 A 20050311 ZA 2003-6286 20030813

PRIORITY APPLN. INFO.: US 2001-336307P P 20011114

US 2002-339862P P 20020731

WO 2002-US36538 W 20021114

WO 2002-US36715 W 20021114

OTHER SOURCE(S):

MARPAT 138:390961

ED Entered STN: 23 May 2003

AB Injectable depot compns. are provided that include a bioerodible, biocompatible polymer, an aromatic alc. having miscibility in water of 5% at 25°, in an amount effective to plasticize the polymer and form a gel therewith, and a beneficial agent. The composition may addnl. contain an ester of an aromatic acid, or an aromatic ketone. The compns. are readily implanted beneath a body surface of the patient by injection, as the aromatic alc. not only facilitates solubilization of the polymer, but also acts as a thixotropic agent, substantially increasing the shear thinning behavior of the composition. A vehicle comprising 50% Resomer RG502 and 50% solvent (benzyl alc.) was prepared. Significant shear thinning behavior was observed when benzyl alc. was used as the solvent in contrast to formulations using benzyl benzoate.

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WO 2005009408 A3 20060119
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG
AU 2003286826 A1 20050314 AU 2003-286826 20031031
EP 1638519 A2 20060329 EP 2003-778041 20031031
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BR 2003018373 A 20060725 BR 2003-18373 20031031
CN 1622814 A 20060823 CN 2003-80110393 20031031
NO 2006000295 A 20060303 NO 2006-295 20060120
US 2006165800 A1 20060727 US 2006-278472 20060403
PRIORITY APPLN. INFO.: US 2002-391867P P 20020625
US 2003-606969 A2 20030625
WO 2003-US34763 W 20031031

ED Entered STN: 11 Jun 2004

AB Drug delivery systems and kits are provided that release an anesthetic, such as bupivacaine, over a short duration. Methods of administering and preparing such systems are also provided. Drug delivery systems include a short duration gel vehicle and an anesthetic dissolved or dispersed in the gel vehicle. The gel vehicle comprises a low mol. weight bioerodible, biocompatible polymer and a water-immiscible solvent in an amount effective to plasticize the polymer and form a gel with the polymer. In some instances, a component solvent is used along with the water-immiscible solvent. An efficacy ratio, which is one way to measure the efficacy of a delivery system, can be controlled based on, for example, the construction of the gel vehicle to achieve a desired release profile. For example, bupivacaine particles with or without steric acid were added in an amount of 10% to 30% by weight to a vehicle comprising Resomer RG502 and benzyl benzoate and blended to obtain implantable depot gel.

IC ICM A61K009-22

INCL 424468000

CC 63-6 (Pharmaceuticals)

IT 64-17-5, Ethanol, biological studies 77-92-9D, Citric acid, alkyl esters 93-89-0, Ethyl benzoate 94-24-6, Tetracaine 100-51-6, Benzyl alcohol, biological studies 120-51-4, Benzyl benzoate 1398-61-4, Chitin 9002-72-6, Bupivacaine hydrochloride 24358-84-7, 26023-30-3, Resomer R 202 26161-42-2, Resomer L 104 26780-50-7, Resomer RG 502 27262-47-1, Levo-bupivacaine 31621-87-1, Resomer X 210 36637-18-0, Etidocaine 38188-41-9, 38188-42-0 38396-39-3, Bupivacaine 52305-30-3, Resomer LR 209 84057-95-4, Ropivacaine 113883-70-8, Resomer LT 706 (sustained-release dosage forms of anesthetics for pain management)

L101 ANSWER 7 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:396597 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 138:390961

TITLE: Injectable depot compositions containing polymers

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IC ICM A61K009-00

CC 63-6 (Pharmaceuticals)

IT 57-11-4, Stearic acid, biological studies 65-85-0D, Benzoic acid, aralkyl esters 100-51-6, Benzyl alcohol, biological studies 120-51-4, Benzyl benzoate 1398-61-4, Chitin 9002-72-6, Somatotropin 9003-39-8, Polyvinylpyrrolidone 9004-61-9, Hyaluronic acid 9012-76-4, Chitosan 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 25322-68-3, Polyethylene glycol 26009-03-0, Polyglycolide 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26202-08-4, Polyglycolide 26680-10-4, Polylactide 26780-50-7, 78644-42-5, Poly(malic acid) 78666-19-0, Poly(malic acid), SRU (injectable depot compns. containing polymers and aromatic alcs.)

» d 8-13 ibib ab ind

L101 ANSWER 8 OF 16 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN DUPLICATE 6

ACCESSION NUMBER: 2003290840 EMBASE [Full-text](#)
TITLE: Structure formation in injectable poly(lactide-co-glycolide) depots.

AUTHOR: Wang L.; Kleiner L.; Venkatraman S.
CORPORATE SOURCE: S. Venkatraman, School of Materials Engineering, Nanyang Technological University, N4-1-130 Nanyang Avenue, Singapore 639798, Singapore. asaubhu@ntu.edu.sg

SOURCE: Journal of Controlled Release, (31 Jul 2003) Vol. 90, No. 3, pp. 345-354.
Refs: 23
ISSN: 0168-3659 CODEN: JCRREC

COUNTRY: Netherlands
DOCUMENT TYPE: Journal Article

FILE SEGMENT: 037 Drug Literature Index
039 Pharmacy

LANGUAGE: English
SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 10 Aug 2003
Last Updated on STN: 10 Aug 2003

AB Solutions of low-molecular-weight poly(lactide-co-glycolide) (PLGA) in organic solvents have been investigated as novel injectable drug depots for drug delivery over periods of weeks to months. In this paper, we investigated the structure formation in a PLGA/benzyl benzoate system using controlled stress rheometry, gel permeation chromatography (GPC), and differential scanning calorimetry (DSC). GPC analysis demonstrated a decrease in molecular weight as a function of time and temperature, indicating degradation. Rheological experiments showed that the flow properties of PLGA/benzyl benzoate solutions were affected by a combination of degradation and gelation; the latter was also detected by an endotherm in DSC and by three-dimensional structure formation studies by rheology. Extent of degradation and gelation of PLGA were shown to depend on the solvent. COPYRIGHT. 2003 Elsevier B.V. All rights reserved.

CT Medical Descriptors:

molecular weight
drug delivery system
flow measurement
gel permeation chromatography
drug structure
drug degradation
temperature
time

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gelation
differential scanning calorimetry
article
priority journal
Drug Descriptors:
*polyglactin: AN, drug analysis
*polyglactin: PR, pharmaceuticals
RM (polyglactin) 26780-50-7, 34346-01-5

L101 ANSWER 9 OF 16 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2005329947 EMBASE Full-text
TITLE: The application of polyhydroxyalkanoates as tissue engineering materials.
AUTHOR: Chen Q.-Q.; Wu Q.
CORPORATE SOURCE: Q.-Q. Chen, Department of Biological Sciences and Biotechnology, Tsinghua University, Beijing 100084, China. chengq@mails.tsinghua.edu.cn
SOURCE: Biomaterials, (2005) Vol. 26, No. 33, pp. 6565-6578. Refs: 83
ISSN: 0142-9612 CODEN: BIMAOU
PUBLISHER IDENT.: S 0142-9612(05)00351-0
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 027 Biophysics, Bioengineering and Medical Instrumentation
033 Orthopedic Surgery
037 Drug Literature Index
039 Pharmacy
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 25 Aug 2005
Last Updated on STN: 25 Aug 2005

AB Polyhydroxyalkanoates (PHA) are polyesters produced by microorganisms under unbalanced growth conditions. They are generally biodegradable and thermoprocessable, making them attractive as biomaterials for applications in both conventional medical devices and tissue engineering. Over the past years, PHA, particularly poly 3-hydroxybutyrate (PHB), copolymers of 3-hydroxybutyrate and 3-hydroxyvalerate (PHBV), poly 4-hydroxybutyrate (P4HB), copolymers of 3-hydroxybutyrate and 3-hydroxyhexanoate (PHBHHx) and poly 3-hydroxyoctanoate (PHO) and its composites have been used to develop devices including sutures, repair devices, repair patches, slings, cardiovascular patches, orthopedic pins, adhesion barriers, stents, guided tissue repair/regeneration devices, articular cartilage repair devices, nerve guides, tendon repair devices, bone marrow scaffolds, and wound dressings. The changing PHA compositions also allow favorable mechanical properties, biocompatibility, and degradation times within desirable time frames under specific physiological conditions. This paper reviews what have been achieved in the PHA tissue engineering area and concluded that the PHA prospective will look very bright in the near future. .COPYRG. 2005 Elsevier Ltd. All rights reserved.

CT Medical Descriptors:
*tissue engineering
*composite material
toxicity testing
degradation
cell proliferation
bone tissue
chemical modification
biocompatibility

in vivo study
implant
in vitro study
biodegradability
chemical composition
osteomyelitis: CO, complication
osteomyelitis: DT, drug therapy
drug delivery system
chronic osteomyelitis: DT, drug therapy
antibiotic therapy
human
nonhuman
review
priority journal
Drug Descriptors:
*polyhydroxyalkanoic acid: PR, pharmaceuticals
*biomaterial: PR, pharmaceuticals
poly(3 hydroxybutyric acid): PR, pharmaceuticals
poly 4 hydroxybutyrate: PR, pharmaceuticals
hydroxybutyric acid: PR, pharmaceuticals
3 hydroxybutyric acid: PR, pharmaceuticals
3 hydroxyvalerate: PR, pharmaceuticals
3 hydroxyhexanoate
hexanoic acid derivative
poly 3 hydroxyoctanoate
pyrogen
hydroxyapatite
drug carrier: PR, pharmaceuticals
hydrogen peroxide
benzoyl peroxide
acrylic acid
chitosan
antibiotic agent: DT, drug therapy
antibiotic agent: PR, pharmaceuticals
sulperazon: DT, drug therapy
sulperazon: PR, pharmaceuticals
gentamicin: DT, drug therapy
gentamicin: PR, pharmaceuticals
duocid: DT, drug therapy
duocid: PR, pharmaceuticals
fluorouracil: PR, pharmaceuticals
antineoplastic agent: PR, pharmaceuticals
polyglactin: PR, pharmaceuticals
tetracycline: PR, pharmaceuticals
polylactide
unclassified drug
RM (poly(3 hydroxybutyric acid)) 26063-00-3; (hydroxybutyric acid) 1320-61-2, 35054-79-6; (3 hydroxybutyric acid) 300-85-6; (hydroxyapatite) 1306-06-5, 51198-94-8; (hydrogen peroxide) 7722-84-1; (benzoyl peroxide) 94-36-0; (acrylic acid) 10344-93-1, 79-10-7; (chitosan) 9012-76-4; (sulperazon) 92739-15-6; (gentamicin) 1392-48-9, 1403-66-3, 1405-41-0; (duocid) 58694-35-2; (fluorouracil) 51-21-8; (polyglactin) 26780-50-7, 34346-01-5; (tetracycline) 23843-90-5, 60-54-8, 64-75-5; (polylactide) 26680-10-4

L101 ANSWER 10 OF 16 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2005388337 EMBASE Full-text
TITLE: Controlled release of levonorgestrel from biodegradable poly(D,L-lactide-co-glycolide) microspheres: In vitro

and in vivo studies.
AUTHOR: Wang S.H.; Zhang L.C.; Lin F.; Sa X.Y.; Zuo J.B.; Shao Q.X.; Chen Q.S.; Zeng S.
CORPORATE SOURCE: S. Zeng, College of Pharmaceutical Sciences, Zhejiang University, Hangzhou 310031, China. zengs@zjuem.zju.edu.cn
SOURCE: International Journal of Pharmaceutics, (14 Sep 2005) Vol. 301, No. 1-2, pp. 217-225. Refs: 22
ISSN: 0378-5173 CODEN: IJPHDE
PUBLISHER IDENT.: S 0378-5173(05)00404-7
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 037 Drug Literature Index
039 Pharmacy
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 29 Sep 2005
Last Updated on STN: 29 Sep 2005

AB Poly(d,l-lactide-co-glycolide) (PLG) biodegradable microspheres containing a contraceptive drug, levonorgestrel (LNG), were prepared using both the solvent evaporation method and a modified solvent extraction-evaporation method. The microspheres prepared with the solvent evaporation process had porous surfaces with low product yields and poor encapsulation efficiencies. On the other hand, the microspheres prepared using the modified solvent extraction-evaporation method were nonporous with encapsulation efficiencies close to 100%. In vitro drug release showed the nonporous microspheres had a lower initial burst and a slightly prolonged duration of release than those porous microspheres. In vivo release kinetics of the low burst microspheres were determined by measuring LNG plasma levels after a single intramuscular injection to female rats. At a LNG dose of 41.1 mg/kg, average plasma LNG levels were 6-10 ng/ml in the first 24 h and subsequently remained above 1 ng/ml until 126 days. The duration above the minimum effective LNG plasma level of 0.2 ng/ml was 168 days. By comparison, a similar dose of LNG microcrystals used as control produced a much higher plasma level of 15-21 ng/ml in the first day followed by a fast and continuous decline of LNG levels with a duration of only about 35 days. .COPYRG. 2005 Elsevier B.V. All rights reserved.

CT Medical Descriptors:
*controlled release formulation
*controlled drug release
encapsulation
biodegradation
extraction
evaporation
porosity
surface property
drug blood level
nonhuman
female
rat
animal experiment
controlled study
article
priority journal
Drug Descriptors:
*levonorgestrel: CR, drug concentration
*levonorgestrel: IM, intramuscular drug administration
*levonorgestrel: PR, pharmaceuticals
*levonorgestrel: PK, pharmacokinetics

*polyglactin: IM, intramuscular drug administration
*polyglactin: PR, pharmaceuticals
*microsphere: IT, drug interaction
*microsphere: IM, intramuscular drug administration
*microsphere: PR, pharmaceuticals
RM (levonorgestrel) 797-63-7; (polyglactin) 26780-50-7, 34346-01-5
CO Peking (China)

L101 ANSWER 11 OF 16 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2004196757 EMBASE Full-text
TITLE: Effective Treatment of Osteomyelitis with Biodegradable Microspheres in a Rabbit Model.
AUTHOR: Ambrose C.G.; Clyburn T.A.; Loudon K.; Joseph J.; Wright J.; Gulati P.; Gogola G.R.; Mikos A.G.
CORPORATE SOURCE: Dr. C.G. Ambrose, 6431 Fannin, Houston, TX 77030, United States. Catherine.G.Ambrose@uth.tmc.edu
SOURCE: Clinical Orthopaedics and Related Research, (2004) No. 421, pp. 293-299. Refs: 29
ISSN: 0009-921X CODEN: CORTBR
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
033 Orthopedic Surgery
037 Drug Literature Index
039 Pharmacy
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 4 Jun 2004
Last Updated on STN: 4 Jun 2004

AB Biodegradable microspheres were manufactured from a high molecular weight copolymer of 50% lactic and 50% glycolic acid and the antibiotic tobramycin. It was hypothesized that the microspheres would be more effective than polymethylmethacrylate beads in the local delivery of tobramycin and that the microspheres would not inhibit bone healing. Osteomyelitis was established in 40 New Zealand White rabbits using Staphylococcus aureus. All animals had irrigation and debridement of the infected radii four weeks after inoculation and were divided into five treatment groups: debridement alone, microspheres alone, microspheres containing tobramycin plus parenteral treatment with cefazolin, polymethylmethacrylate beads containing tobramycin plus parenteral cefazolin, and parenteral cefazolin. All animals were sacrificed after 4 weeks of treatment. The group treated with microspheres plus parenteral antibiotics was the only group to have a significantly higher percentage of animals without bacteria after 4 weeks of treatment when compared with the control group. Additionally, the animals treated with microspheres had a higher degree of bone healing in the defect than the animals treated with bone cement. The most effective treatment was biodegradable microspheres combined with parenteral antibiotic in this rabbit osteomyelitis model.

CT Medical Descriptors:
*osteomyelitis: DT, drug therapy
*antibiotic therapy
rabbit
animal model
Staphylococcus aureus
biodegradability
drug delivery system
minimum inhibitory concentration
treatment outcome

parenteral drug administration
nonhuman
male
controlled study
animal tissue
article
priority journal

Drug Descriptors:
*tobramycin sulfate: CB, drug combination
*tobramycin sulfate: CM, drug comparison
*tobramycin sulfate: DT, drug therapy
*tobramycin sulfate: PR, pharmaceuticals
*cefazolin: CB, drug combination
*cefazolin: CM, drug comparison
*cefazolin: DT, drug therapy
*cefazolin: PR, pharmaceuticals
*microsphere: CB, drug combination
*microsphere: CM, drug comparison
*microsphere: PR, pharmaceuticals
*polyglactin: CB, drug combination
*polyglactin: CM, drug comparison
*polyglactin: PR, pharmaceuticals
*poly(methyl methacrylate): CB, drug combination
*poly(methyl methacrylate): CM, drug comparison
*poly(methyl methacrylate): PR, pharmaceuticals
antibiotic agent: CB, drug combination
antibiotic agent: CM, drug comparison
antibiotic agent: DT, drug therapy
antibiotic agent: PR, pharmaceuticals
bone cement

RN (tobramycin sulfate) 49842-07-1; (cefazolin) 25953-19-9, 27164-46-1;
(polyglactin) 26780-50-7, 34346-01-5; (poly(methyl
methacrylate)) 39320-98-4, 9008-29-1

CN (1) Nebcin
NP (1) Orthoset
CO (1) Lilly (United States)
CU (1) Wright (United States); Medisorb (United States)

L101 ANSWER 12 OF 16 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation
on STN
ACCESSION NUMBER: 2005:136319 BIOSIS Full-text
DOCUMENT NUMBER: PREV200500135104
TITLE: Structure formation in injectable poly(lactide-co-glycolide) depots. II. Nature of the gel.
AUTHOR(S): Wang, Liwei; Venkatraman, Subbu [Reprint Author]; Gan, Leong Huat; Kleiner, Lothar
CORPORATE SOURCE: Sch Mat Engrn, Nanyang Technol Univ, N4-1-1-30 Nanyang Ave, Singapore, 639798, Singapore
asubbu@ntu.edu.sg
SOURCE: Journal of Biomedical Materials Research, (January 15 2005) Vol. 72B, No. 1, pp. 215-222. print.
ISSN: 0021-9304 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 6 Apr 2005
Last Updated on STN: 6 Apr 2005

AB The benzyl benzoate solutions of poly(D,L-lactide-co-glycolide), a random oriented synthesized copolymer with L/G ratio of 50:50, have been shown to form gels during aging and upon injection into buffer or water. The gelation properties influence drug release kinetics for these injectable, depot-forming

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solutions. In this article, we report on the mechanism of gelation. We find that only polymers that have a certain average block length of glycolide units form gels during aging as well as depots upon in vitro. Thus, gel formation is likely due to the formation of ordered solvated aggregates of blocky glycolide units. Rheometry, differential scanning calorimetry, and nuclear magnetic resonance were used to investigate the gelation kinetics and the polymer molecular parameters. Of all the polymers used, poly(lactide-co-glycolide)s with glycolide average block length <2.9 did not show any gelation behavior. The details of the gelation process are also solvent dependent. Copyright 2004 Wiley Periodicals, Inc.

CC Biochemistry studies - General 10060
Biophysics - Bioengineering 10511
IT Major Concepts
Biomaterials
IT Chemicals & Biochemicals
benzyl benzoate; buffer solution; copolymer; gels; glycolide; poly(lactide-co-glycolide) (PLGA); water
IT Methods & Equipment
differential scanning calorimetry; laboratory techniques; nuclear magnetic resonance; laboratory techniques; spectrum analysis techniques; rheometry; laboratory techniques
IT Miscellaneous Descriptors
gelation
RN 120-51-4 (benzyl benzoate)
502-97-6 (glycolide)
26780-50-7 (poly(lactide-co-glycolide))
26780-50-7 (PLGA)
7732-18-5 (water)

L101 ANSWER 13 OF 16 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation
on STN
ACCESSION NUMBER: 2005:28314 BIOSIS Full-text
DOCUMENT NUMBER: PREV200500029018
TITLE: Drug release from injectable depots: two different in vitro mechanisms.
AUTHOR(S): Wang, Liwei; Venkatraman, Subbu [Reprint Author]; Kleiner, Lothar
CORPORATE SOURCE: Sch Mat Engrn, Nanyang Technol Univ, N4-1-1-30 Nanyang Ave, Singapore, 639798, Singapore
asubbu@ntu.edu.sg
SOURCE: Journal of Controlled Release, (September 30 2004) Vol. 99, No. 2, pp. 207-216. print.
ISSN: 0168-3659 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 5 Jan 2005
Last Updated on STN: 5 Jan 2005

AB Certain poly(lactide-co-glycolide) (PLGA)/benzyl benzoate (BB) solutions can form gels when injected into buffer (depot formation) as well as upon ageing under ambient conditions. When evaluating various PLGAs in benzyl benzoate, we have found that only those that gel upon ageing also form gel depots in buffer. This indicates that depot formation in this system may be fundamentally different from the phase inversion depot formation that has been observed for PLGA in water-miscible solvents. The drug release kinetics in vitro is controlled both by diffusion and erosion, with the base form of the drug being always released faster than its salt form. This is due to base-catalyzed hydrolysis. While gel permeation chromatography (GPC) measurements show a continuous decrease in molecular weight, the rheological properties upon buffer injection show maxima, for the base drug and the salt drug. The

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location of the viscosity maximum with time is dependent on the nature of the drug and its concentration. Copyright 2004 Published by Elsevier B.V.

CC Pathology - Therapy 12512
Pharmacology - General 22602
IT Major Concepts
Methods and Techniques; Pharmaceuticals (Pharmacology)
IT Chemicals & Biochemicals
benzyl benzoate; buffer solution; poly(lactide-co-glycolide)
IT Methods & Equipment
drug delivery; clinical techniques; therapeutic and prophylactic techniques; gel permeation chromatography; chromatographic techniques; laboratory techniques
IT Miscellaneous Descriptors
base drug; drug release; gel; phase inversion depot; rheological property; salt drug
RN 120-51-4 (benzyl benzoate)
26780-50-7 (poly(lactide-co-glycolide))

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L101 ANSWER 14 OF 16 WPIX COPYRIGHT 2007 THE THOMSON CORP ON STN
ACCESSION NUMBER: 2005-132402 [14] WPIX
CROSS REFERENCE: 2004-156370
DOC. NO. CPI: C2005-043640 [14]
TITLE: Dosage form for treating local pain of subject comprises short duration gel vehicle containing low molecular weight bioerodible, biocompatible polymer and water-immiscible solvent; and anesthetic dissolved/dispersed in the gel vehicle
DERIVAT CLASS: A96; B05; B07
INVENTOR: BANNISTER R; CHEN G; HOUSTON P;
HOUSTON P R; KLEINER L;
KLEINER L W; PRIEBE D; PRIEBE D T
PATENT ASSIGNEE: (ALZA-C) ALZA CORP
COUNTRY COUNT: 104

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2005009408	A2	20050203	(200514)	EN	50 [15]	
AU 2003286826	A1	20050214	(200532)	EN		
EP 1638519	A2	20060329	(200623)	EN		A61K009-00
WO 2006006295	A	20060303	(200632)	MO		
BR 2003018373	A	20060725	(200651)	PT		A61K009-00
MX 2005014193	A1	20060301	(200651)	ES		
CN 1822814	A	20060823	(200682)	2H		A61K009-00

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2005009408	A2	WO 2003-US34763	20031031
AU 2003286826	A1	AU 2003-286826	20031031
BR 2003018373	A	BR 2003-18373	20031031
EP 1638519	A2	EP 2003-778041	20031031
EP 1638519	A2	WO 2003-US34763	20031031
BR 2003018373	A	WO 2003-US34763	20031031
MX 2005014193	A1	WO 2003-US34763	20031031

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MX 2005014193 A1
NO 200600295 A
CN 1822814 A

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003286826	A1	WO 2005009408
EP 1638519	A2	WO 2005009408
BR 2003018373	A	WO 2005009408
MX 2005014193	A1	WO 2005009408

PRIORITY APPLN. INFO: US 2003-606969 20030625
INT. PATENT CLASSIF.:
MAIN: A61K009-00
SECONDARY: A61K047-10; A61K047-14
IPC ORIGINAL: A61K0047-10 [I,A]; A61K0047-10 [I,A]; A61K0047-14 [I,A]; A61K0047-14 [I,A]; A61K0009-00 [I,A]; A61K0009-00 [I,A]; A61K0047-10 [I,A]; A61K0009-00 [I,A]
IPC RECLASSIF.: A61K0047-10 [I,A]; A61K0047-10 [I,C]; A61K0047-14 [I,A]; A61K0047-14 [I,C]; A61K0009-00 [I,A]; A61K0009-00 [I,C]

BASIC ABSTRACT:
WO 2005009408 A2 UPAB: 20060121
NOVELTY - A sustained release dosage form of an anesthetic (F1) comprises a short duration gel vehicle comprising a low molecular weight bioerodible, biocompatible polymer and a water-immiscible solvent to plasticize the polymer and form a gel; and an anesthetic dissolved or dispersed in the gel vehicle.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:
(1) preparation (M1) of (F1) involving: preparing a short duration gel vehicle containing a low molecular weight bioerodible, biocompatible polymer and a water-immiscible solvent to plasticize the polymer and form a gel to create a polymer/solvent solution or gel; equilibrating the polymer/solvent mixture until a clear homogeneous solution or gel is achieved; dissolving or dispersing an anesthetic into the polymer/solvent solution or gel; blending the anesthetic and the polymer/solvent solution or gel to form a sustained release dosage form; and controlling an efficacy ratio to achieve a release profile; and
(2) a kit for administration of a sustained delivery of an anesthetic to local pain of a subject comprises (F1) and optionally, at least one of an excipients, emulsifying agent, pore former, solubility modulator for the anesthetic, optionally associated with the anesthetic, and an osmotic agent. The anesthetic agent, optionally associated with the solubility modulator, is maintained separated from the solvent until the time of administration of the anesthetic to the subject.
ACTIVITY - Analgesic; Vulnerary; Osteopathic.
MECHANISM OF ACTION - None given.
USE - For treating local pain e.g. post-surgical local pain of a subject (claimed); for wound healing, bone repair, and other structural support purposes.
ADVANTAGE - (F1) provides controllable efficacy ratio of (preferably of 1 - 200, especially 5 - 100) to achieve a release profile. (F1) provides sustained release of the anesthetic for at most 14 (preferably 7) days or lasts for 24 hours - 7 days. (F1) is free of solvents having a miscibility in water of at least 7 weight at 25degreesC. (F1) provides sustained release over a short duration and provides sustained release over several days when administered singly.

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(F1) can be administered once to the patient. MANUAL CODE: CPI: A09-A07; A12-V01; B04-C02A1; B04-C02B3;

B04-C02P; B04-C03A; B04-C03C; B04-C03D; B05-B01P; B07-H; B10-A10; B10-B01A; B10-B02P; B10-C04E; B10-D03; B10-E04C; B10-E04D; B10-F02; B10-G02; B12-M03; B12-M12C; B14-C01; B14-C08; B14-N01B; B14-N17B

TECH

PHARMACEUTICALS - Preferred Components: The anesthetic is selected from bupivacaine, levo-bupivacaine, ropivacaine, levo-ropivacaine, tetracaine, etidocaine, levo-etidocaine, dextro-etidocaine, levo-etidocaine, dextro-etidocaine and/or levo-mepivacaine (preferably bupivacaine). Preferred Dosage Form: (F1) comprises anesthetic (preferably bupivacaine) (0.1 - 50, preferably 0.5 - 40, especially 1 - 30 wt %). (F1) further comprises at least one of an excipient, emulsifying agent, pore former, solubility modulator for the anesthetic, and osmotic agent to the dosage form.

ORGANIC CHEMISTRY - Preferred Components: The solvent has a miscibility in water of at most 7 wt % at 25degreesC. The solvent is selected from an aromatic alcohol, lower alkyl ester of aryl acid, lower aralkyl ester of aryl acid, aryl ketone, aralkyl ketone, lower alkyl ketone and/or lower alkyl ester of citric acid (preferably mineral oil, silicone fluid or glycerin).

POLYMERS - Preferred Components: The solvent is polybutene or polyethylene glycol. The polymer comprises a lactic acid-based polymer; a copolymer of lactic acid and glycolic acid (PLGA); caprolactone-based polymer; ester end group or carboxylic end group (preferably polylactide, polyglycolide, poly(caprolactone), polyanhydride, polyamine, polyesteramide, polyorthoester, polydioxanone, polyacetal, polyketal, polycarbonate, polyphosphoester, polyester, polybutylene terephthalate, polyorthocarbonate, polyphosphazene, succinate, poly(maleic acid), poly(amino acid), polyvinylpyrrolidone, polyethylene glycol, polyhydroxycellulose, polysaccharide, chitin, chitosan, hyaluronic acid, their copolymers and/or terpolymers, especially poly(D,L-lactide-co-glycolide) or poly(L-lactide-co-glycolide).

The copolymer of lactic acid and glycolic acid has a monomer ratio of lactic acid to glycolic acid of approximately 50:50. The polymer has a weight average molecular weight of 3000 - 10000 (preferably 3000 - 8000, especially 4000 - 6000, particularly 5000). The polymer and the solvent is present in a ratio of 5:95 - 90:10 (preferably 20:80 - 80:20, especially 30:70 - 75:25). The lactic-based polymer has an average molecular weight of 3000 - 10000 (preferably 3000 - 8000, especially 4000 - 6000, particularly 5000). The PLGA comprises a ester end and carboxyl end groups. In (M1), polymer comprises a lactic acid-based polymer; copolymer of lactic acid and glycolic acid (PLGA) (preferably poly(D,L-lactide-co-glycolide) or poly(L-lactide-co-glycolide)).

ABX ADMINISTRATION - (F1) is administered once, repeatedly or injected at a location near the local pain. (F1) is administered topically, systemically. The anesthetic is administered to multiple sites or multiple locations surrounding the local pain (all claimed). (F1) is

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US 20050106214 A1 Provisional
US 20050106214 A1
AU 2004291093 A1
EP 1691826 A1
WO 2005049069 A1
EP 1691826 A1
WO 2006002780 A
WO 2006002780 A
MX 2006005463 A1
MX 2006005463 A1

US 2003-519936P 20031114
US 2004-985122 20041110
AU 2004-291093 20041112
EP 2004-801017 20041112
WO 2004-US37781 20041112
WO 2004-US37781 20041112
WO 2004-US37781 20041112
WO 2006-2780 20060614
WO 2004-US37781 20041112
MX 2006-5463 20060915

FILING DETAILS:

PATENT NO	KIND	PATENT NO
EP 1691826	A1 Based on	WO 2005049069 A
AU 2004291093	A1 Based on	WO 2005049069 A
MX 2006005463	A1 Based on	WO 2005049069 A

PRIORITY APPL. INFO: US 2004-985122 20041110
US 2003-519936P 20031114

INT. PATENT CLASSIF.:

MAIN: A61K038-27
SECONDARY: A61K047-30
IPC ORIGINAL: A61K0038-27 [I,C]; A61K0038-27 [I,A]; A61K0038-27 [I,A]; A61K0047-30 [I,C]; A61K0047-30 [I,A]; A61K0047-30 [I,A]; A61K0009-14 [I,A]; A61K0009-14 [I,A]
IPC RECLASSIF.: A61K0038-27 [I,A]; A61K0038-27 [I,C]; A61K0047-30 [I,A]; A61K0047-30 [I,C]; A61K0009-14 [I,A]; A61K0009-14 [I,C]

BASIC ABSTRACT:

US 20050106214 A1 UPAB: 20051222

NOVELTY - An injectable depot gel composition comprises:

(i) a gel vehicle comprising a bioerodible, biocompatible polymer and a water-immiscible solvent to plasticize the polymer and form a gel;
(ii) a beneficial agent dissolved or dispersed in the gel vehicle; and
(iii) an excipient comprising an antioxidant for modulating a release rate and stabilizing the beneficial agent.
The sustained delivery occurs during 24 hours to 12 months after administration.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(a) a method of preparing an injectable depot gel composition, which comprises:
(1) mixing a bioerodible, biocompatible polymer and a water-immiscible solvent to form a gel vehicle;
(2) dissolving or dispersing a beneficial agent into the gel vehicle;
(3) mixing an excipient comprising an antioxidant for modulating a release rate into the gel vehicle; and
(4) stabilizing the beneficial agent; and
(b) a kit for administration of a sustained delivery of a beneficial agent for 24 hours to 12 months after administration, which comprises (i), (ii) and (iii) as above and, optionally, a pH modifier, an emulsifying agent, a pore former, a solubility modulator (for an anesthetic that is optionally associated with the beneficial agent) and an osmotic agent.

In the kit, at the least anesthetic agent (optionally associated with the solubility modulator) is maintained separated from the solvent until the time of administration of the anesthetic agent to the subject.

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administered subcutaneously, intramuscularly, intravascularly, intramyocardially, adventitially, intratumorally, or intracerebrally.

SPECIFIC COMPOUNDS - Benzyl alcohol, benzyl benzoate, ethyl benzoate, triacetin, diacetin, tributyrin, triethyl citrate, tributyl citrate, acetyl triethyl citrate, acetyl tributyl citrate, triethylglyceride, triethyl phosphate, diethyl phthalate, diethyl tartrate, ethylene glycol, octanol, ethyl lactate, propylene glycol, propylene carbonate, ethylene carbonate, butyrolactone, ethylene oxide, propylene oxide, N-methyl-2-pyrrolidone, 2-pyrrolidone, glycerol formal, methyl acetate, ethyl acetate, methyl ethyl ketone, dimethylformamide, dimethyl sulfoxide, tetrahydrofuran, caprolactam, decylmethylsulfoxide, oleic acid, and 1-dodecylazacyclo-heptan-2-one are specifically claimed as the solvents.

EXAMPLE - A formulation was prepared as follows: Particles of bupivacaine hydrochloride (10 %) (prepared by grounding and sieving through 63 - 125 mu sieves followed by adding stearic acid (100 g)) was added to a gel vehicle (10 - 30 wt %) containing low molecular weight poly(D,L-lactide-co-glycolide) (PLGA) (having molecular weight of 8000) with an ester end group (58.5 wt %) and benzyl alcohol (31.5 wt %) and then blended manually until the dry powder was wetted completely. Then, a milky light yellow particle/gel mixture was thoroughly blended by conventional mixing to obtain a formulation. The effect of solvent on the bupivacaine release was carried out as follows: An in vivo release profile of bupivacaine obtained in rats from the formulation. The release rate profiles of bupivacaine from short duration depot was as follows: Cmax (maximum plasma concentration of bupivacaine) was 417/-53; Coverage (average plasma concentration of bupivacaine from day 2 - day 9) was 5/-3 and efficacy ratio was 81.4.

L101 ANSWER 15 OF 16 WPIX COPYRIGHT 2007 THE THOMSON CORP ON STN
ACCESSION NUMBER: 2005-365771 [37] WPIX
DOC. NO. CPI: C2005-112460 [37]

TITLE: Injectable depot gel composition for sustained delivery of beneficial agent, including gel vehicle comprising biocompatible polymer and water-immiscible solvent, beneficial agent, excipient comprising antioxidant, and pH modifier
DERIVAT CLASS: A18; A28; A96; B05; B07
INVENTOR: CHEN G
PATENT ASSIGNEE: (ALZA-C) ALZA CORP; (CHEN-I) CHEN G
COUNTRY COUNT: 107

PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC
US 20050106214	A1 20050519	(200537)*	EN	19[3]	
WO 2005049069	A1 20050602	(200537)	EN		
EP 1691826	A1 20060823	(200655)	EN		
NO 2006002780	A 20060814	(200659)	NO		
AU 2004291093	A1 20050602	(200660)	EN		
MX 2006005463	A1 20060901	(200706)	ES		A61K038-27

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

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USB - The composition is used for the sustained delivery of a beneficial agent. It can be applied with chemotherapeutic agents for local application of such agents to avoid or minimize systemic side effects.

ADVANTAGE - The invention can stabilize beneficial agents that are exposed to damaging microenvironments due to polymer degradation, and/or the presence of undesired free radicals or peroxides. It modulates release of beneficial agents from drug delivery systems to achieve desirable release rates. It releases a beneficial agent over both a short duration and a prolonged duration. It minimizes the burst effect.

DESCRIPTION OF DRAWINGS - The figure shows the in vivo release profile of bupivacaine hydrochloride. MANUAL CODE: CPI: A08-S02; A12-V01; B03-H;

B04-B01B; B04-B01C3; B04-C01B; B04-C02E; B04-C02B3; B04-C03; B04-H05A; B04-H07; B04-J05J; B05-A01B; B05-A03A4; B05-B01P; B05-B02A3; B05-C04; B05-C08; B06-A01; B06-A03; B07-H; B10-A10; B10-B02D; B10-B03B; B10-C02; B10-C04D; B10-C04E; B10-D03; B10-E02; B10-E04; B10-F02; B10-G02; B12-M02; B12-M10A6; B12-M12C; B14-C08; B14-H01

TECH

ORGANIC CHEMISTRY - Preferred Component: The excipient offsets the effects of peroxides and/or free radicals. The composition further comprises a pH modifier from organic salts. The pH modifier is preferably calcium lactate, calcium maleate, calcium oleate, calcium oxalate, magnesium acetate, magnesium lactate, magnesium maleate, magnesium oleate, magnesium oxalate, zinc acetate, zinc lactate, zinc maleate, zinc oleate, and/or zinc oxalate. The antioxidant is a reducing agent comprising cysteine or methionine, is a free radical scavenger or is from d-alpha tocopherol acetate, dl-alpha tocopherol, ascorbyl palmitate, butylated hydroxyanisole, ascorbic acid, butylated hydroxyanisole, butylated hydroxyquinone, butylhydroxyanisole, hydroxycoumarin, butylated hydroxytoluene, cephalin, ethyl gallate, propyl gallate, octyl gallate, lauryl gallate, propylhydroxybenzoate, trihydroxybutylrophenone, dimethylphenol, ditert-butylphenol, vitamin E, lecithin, and/or ethanolamine. The solvent is from aromatic alcohols, lower alkyl esters of aryl acids, lower aralkyl esters of aryl acids; aryl ketones, aralkyl ketones, lower alkyl ketones, and/or lower alkyl esters of citric acid. It can be benzyl alcohol, benzyl benzoate, ethyl benzoate, or triacetin. It comprises a component solvent from triacetin, diacetin, tributyrin, triethyl citrate, tributyl citrate, acetyl triethyl citrate, acetyl tributyl citrate, triethylglyceride, triethyl phosphate, diethyl phthalate, diethyl tartrate, mineral oil, glycerin, ethylene glycol, octanol, ethyl lactate, propylene glycol, propylene carbonate, ethylene carbonate, butyrolactone, ethylene oxide, propylene oxide, N-methyl-2-pyrrolidone, 2-pyrrolidone, glycerol formal, methyl acetate, ethyl acetate, methyl ethyl ketone, dimethylformamide, dimethyl sulfoxide, tetrahydrofuran, caprolactam, decylmethylsulfoxide, oleic acid, and/or 1-dodecylazacyclo-heptan-2-one. The composition further comprises an emulsifying agent, a pore former, a solubility modulator for the anesthetic and/or an osmotic agent. Preferred Composition: The composition comprises 0.01-50 (0.1-30) wt % excipient. The ratio between the excipient and the beneficial agent is 0.1:99.9-99:1 (preferably 1:99-60:40). Preferred Property: The solvent has a miscibility in water of at most 7 wt % at 25degreesC. The composition is free of solvents having a miscibility in water that is greater than 7 wt % at 25degreesC. The beneficial agent comprises particles having an average particle size of less than 250 microns or 38-63 microns.

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PHARMACEUTICALS - The beneficial agent is a protein, a peptide and/or a drug. It preferably comprises a protein from human growth hormone, interferon alpha-2a, interferon alpha-2b, EPO, methionine-human growth hormone, desphenylalanine human growth hormone and/or consensus interferon. Alternatively, it preferably comprises a drug comprising bupivacaine or paclitaxel, or a peptide comprising leuprolide or desmopressin.

INORGANIC CHEMISTRY - Preferred Component: The pH modifier is an inorganic salt. It can be zinc carbonate, magnesium carbonate, calcium carbonate, magnesium hydroxide, calcium hydrogen phosphate, calcium acetate, calcium hydroxide, calcium phosphate, magnesium hydrogen phosphate, magnesium phosphate, zinc hydrogen phosphate, and/or zinc phosphate.

POLYMERS - Preferred Component: The solvent component can be polybutene, silicone fluid, and/or polyethylene glycol. The polymer comprises a lactic acid-based polymer or a copolymer of lactic acid and glycolic acid (PLGA). It preferably comprises poly(D,L-lactide-co-glycolide) or poly(L-lactide-co-glycolide). It may comprise a caprolactone-based polymer. It is preferably from polylactides, polyglycolides, poly(caprolactone), polyanhydrides, polyamines, polyesteramides, polyorthoesters, polydioxanones, polyacetals, polyketals, polycarbonates, polyphosphoesters, polyesters, polybutylene terephthalate, polyorthocarbonates, polyphosphazenes, succinates, poly(malic acid), poly(amino acids), polyvinylpyrrolidone, polyethylene glycol, polyhydroxycellulose, polysaccharides, chitin, chitosan, hyaluronic acid, and/or their copolymers or terpolymers. The polymer has a weight average molecular weight of 1000-120000. Preferred Composition: The copolymer has a monomer ratio of lactic acid to glycolic acid of 50:50-100:0. The composition comprises 5-90 (15-75) wt.% of the polymer, and 0.1-50 (1-30) wt.% beneficial agent. The ratio between the polymer and the solvent is 5:95-90:10 (preferably 30:70-75:25).

ABEX EXAMPLE - A depot gel bupivacaine formulation comprising (wt.%) poly(D, L-lactide-co-glycolide) (43.5), benzyl benzoate (43.5), bupivacaine base (10), and zinc carbonate (3) was loaded into a syringe. A disposable needle was attached to the syringe and heated to 37degreesC. The formulation was injected into rats and blood was drawn at time intervals and analyzed for bupivacaine. The formulation did not exhibit the typical biphasic release profile, much flatter release profiles after initial burst release, and short release duration instead.

L101 ANSWER 16 OF 16 WPIX COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2004-2-20302 [19] WPIX
DOC. NO. CPI: C2004-080180 [19]
DOC. NO. NON-CPI: N2004-151802 [19]
TITLE: Injectible depot composition for sustained release of beneficial agent to patient, comprises polymer matrix comprising bioerodible, biocompatible polymers, e.g. polylactides, each having specified weight average molecular weight
DERWENT CLASS: A18; A28; A96; B07; D22; P34
INVENTOR: CHEN G; HOUSTON P; HOUSTON P
R; KLEINER L; KLEINER L W;
WRIGHT J; WRIGHT J C
PATENT ASSIGNER: (ALZA-C) ALZA CORP; (CHEN-I) CHEN G; (HOUS-I) HOUSTON P; (KLEI-I) KLEINER L; (WRIGHT-I) WRIGHT J
COUNTRY COUNT: 104

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PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2004011054	A2	20040205	(200419) *	EN	89 [11]	
US 20040022859	A1	20040205	(200419)	EN		
AU 2003256849	A1	20040216	(200453)	EN		
WO 2005001025	A	20050225	(200530)	NO		A61K009-10
EP 1539101	A2	20050615	(200539)	EN		
BR 2003013539	A	20050621	(200542)	PT		
JP 2005538107	W	20051215	(200582)	JA	51	A61K047-38
CN 1684663	A	20051019	(200612)	ZH		A61K009-00
IN 2005000288	P2	20060106	(200615)	EN		
ZA 2005001645	A	20060531	(200640)	EN	113	A61K000-00
KR 2005083605	A	20050826	(200644)	KO		A61K047-34

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004011054	A2	WO 2003-US23439	20030728
US 20040022859	A1 Provisional	US 2002-399832P	20020731
AU 2003256849	A1	AU 2003-256849	20030728
BR 2003013539	A	BR 2003-13539	20030728
CN 1684663	A	CN 2003-822558	20030728
EP 1539101	A2	EP 2003-771916	20030728
US 20040022859	A1	US 2003-628984	20030728
WO 2005001025	A	WO 2003-US23439	20030728
EP 1539101	A2	WO 2003-US23439	20030728
BR 2003013539	A	WO 2003-US23439	20030728
JP 2005538107	W	WO 2003-US23439	20030728
IN 2005000288	P2	WO 2003-US23439	20030728
JP 2005538107	W	JP 2004-524891	20030728
ZA 2005001645	A	ZA 2005-1645	20050224
WO 2005001025	A	NO 2005-1025	20050225
IN 2005000288	P2	IN 2005-KM288	20050228
KR 2005083605	A	WO 2003-US23439	20030728
KR 2005083605	A	KR 2005-701821	20050131

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003256849	A1	Based on WO 2004011054 A
EP 1539101	A2	Based on WO 2004011054 A
BR 2003013539	A	Based on WO 2004011054 A
JP 2005538107	W	Based on WO 2004011054 A
KR 2005083605	A	Based on WO 2004011054 A

PRIORITY APPLN. INFO: US 2002-399832P 20020731
US 2003-628984 20030728

INT. PATENT CLASSIF.:

MAIN:	A61K; A61K047-38; A61K009-10; A61L031-00; A61K047-34
SECONDARY:	A61K047-08; A61K047-10; A61K047-14; A61K047-22; A61K047-24; A61K047-32; A61K047-36; A61K009-06; A61K009-00
IPC RECLASSIF.:	A61K0047-34 [I,A]; A61K0047-34 [I,C]; A61K0009-00 [I,A]; A61K0009-00 [I,C]; A61K0009-10 [I,A]; A61K0009-10 [I,C]; A61K0009-14 [I,A]; A61K0009-14 [I,C]; A61L0031-00 [I,A]; A61L0031-00 [I,C]

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BASIC ABSTRACT:

WO 2004011054 A2 UPAB: 20060203

NOVELTY - Injectible depot composition comprises:

- (1) polymer matrix comprising bioerodible, biocompatible polymers, each having specified weight average molecular weight;
 - (2) solvent having a miscibility in water of at most 7% at 25 degrees C, in amount to plasticize the polymer and form a gel; and
 - (3) beneficial agent dissolved or dispersed in the gel.
- Polymer matrix has a broad molecular weight distribution of the polymers.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

- (a) administering a beneficial agent to a subject in a controlled manner over a duration of up to 1 year, comprising administering an injectable depot composition; and
- (b) a kit for administration of a beneficial agent to a subject comprising:

(1) a polymer matrix comprising a bioerodible, biocompatible polymers, where a first of the polymers is a low molecular weight (LMW) polymer, a second is a high molecular weight (HMW) polymer, a third is a medium molecular weight (MMW) polymer, the polymer matrix having a broad, multi-modal molecular weight distribution of the polymers;

(2) a solvent having a miscibility in water of at most 7% at 25 degrees C, in an amount effective to plasticize the polymer and form a gel therewith; a beneficial agent dissolved or dispersed in the gel; and optionally

(3) one or more of an emulsifying agent; a pore former; a solubility modulator for the beneficial agent, optionally associated with the beneficial agent; and an osmotic agent, where at least the beneficial agent, optionally associated with the solubility modulator, is maintained separated from the solvent until the time of administration of the beneficial agent to a subject

USE - For injection into a desired location within a patient's body to form an implant, which provides for controlled, sustained release of beneficial agent to a patient.

ADVANTAGE - The composition has improved shear thinning behavior and reduced injection force, rendering the composition readily implanted beneath a patient's body surface by injection.

DESCRIPTION OF DRAWINGS - The figure is a graph illustrating the rheological behavior of depot gel composition. MANUAL CODE: CPI: A07-A05; A08-S02; A12-V02; B04-B01C3; B04-C01;

B05-B01P; B06-H; B07-H; B10-A10; B10-DO3; B10-E02;
B10-E04C; B10-F02; B10-G02; B11-C04A; B12-M10;
D09-C01

TECH

POLYMERS - Preferred Component: A third polymer is a medium molecular weight (MMW) polymer. The polymer matrix has a bi-modal or a broad, multi-modal molecular weight distribution of the polymers. Preferred Material: The polymer is polylactides, polyglycolides, polyanhydrides, polyamines, polyesteramides, polyorthoesters, polydioxanones, polyacetals, polyketals, polycarbonates, polyphosphoesters, polyoxaesters, polyorthocarbonates, polyphosphazenes, succinates, poly(malic acid), poly(amino acids), polyvinylpyrrolidone, polyethylene glycol, polyhydroxycellulose, polyphosphoesters, chitin, chitosan, and copolymers, and/or terpolymers. The polymer is a lactic acid-based polymer. It is copolymer of lactic acid and glycolic acid.

Preferred Composition: The polymer matrix comprises 0-95 wt.% each of LMW, MMW, and MMW polymer. The composition comprises 5-90 (preferably 25-60) wt.% biodegradable, biocompatible lactic acid-based polymer.

ORGANIC CHEMISTRY - Preferred Material: The solvent is aromatic alcohols, esters of aromatic acids, and/or aromatic ketones. The aromatic acid is benzyl alcohol. The ester of an

aromatic acid is benzyl benzoate and the lower alkyl ester of an aromatic acid is ethyl benzoate. The component solvent is triacetin, diacetin, tributyrin, triethyl citrate, tributyl citrate, acetyl triethyl citrate, acetyl tributyl citrate, triethylglycerides, triethyl phosphate, diethyl phthalate, diethyl tartrate, mineral oil, polybutene, silicone fluid, glycerin, ethylene glycol, polyethylene glycol, octanol, ethyl lactate, propylene glycol, propylene carbonate, ethylene carbonate, butyrolactone, ethylene oxide, propylene oxide, N-methyl-2-pyrrolidone, 2-pyrrolidone, glycerol formal, methyl acetate, ethyl acetate, methyl ethyl ketone, dimethylformamide, dimethyl sulfoxide, tetrahydrofuran, caprolactam, decylmethylsulfoxide, oleic acid, and/or 1-dodecylazacyclo-heptan-2-one.

Preferred Property: The solvent has a miscibility in water of at most 5 (preferably 0.5) wt.% at 25 degrees C. Preferred Component: The aromatic alcohol has the structural formula Ar-(L)n-OH (I).

Ar = optionally substituted aryl or heteroaryl, preferably Ph; n = 0 or 1;

L = linking moiety, preferably methylene.

Preferred Composition: The ratio of the aromatic alcohol to the ester of an aromatic acid is 1-99 (preferably 20-80) wt. %.

ABEX EXAMPLE - Poly(D,L-lactide-co-glycolide) (PLGA) (L/G ratio of 50/50) with an inherent viscosity of 0.15, and Resomer (PLGA RG 502 or Resomer PLGA RG 503 (L/G ratio of 50/50), were weighed into a glass vessel. The glass vessel containing the polymer was tared and the corresponding solvent was added. The polymer/solvent mixture was stirred at 2500/50 rpm for 5-10 minutes, resulting in a sticky paste-like substance containing polymer particles. The vessel containing the polymer/solvent mixture was sealed and placed in a controlled incubator, with intermittent stirring, depending on solvent and polymer type and solvent and polymer ratios. The polymer/solvent mixture was removed from the incubator when it appeared to be clear amber homogenous solution. The mixture was placed in an oven (65 degrees C) for 30 minutes. It was noted that the PLGA was dissolved in the mixture upon removal from the oven.

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=> d his nofile

(FILE 'HOME' ENTERED AT 09:24:00 ON 29 JAN 2007)

FILE 'HCAPLUS' ENTERED AT 09:24:10 ON 29 JAN 2007

L1 1 SEA ABB=ON PLU=ON US20040022859/PN
D SCA
SEL RN

L2 FILE 'REGISTRY' ENTERED AT 09:24:42 ON 29 JAN 2007
55 SEA ABB=ON PLU=ON (102-76-1/BI OR 105-60-2/BI OR
107-21-1/BI OR 108-32-7/BI OR 109-99-9/BI OR 111-87-5/BI
OR 112-80-1/BI OR 113883-70-8/BI OR 1398-61-4/BI OR
141-78-6/BI OR 25322-68-3/BI OR 25395-31-7/BI OR 26009-03-0
/BI OR 26023-30-3/BI OR 26161-42-2/BI OR 26202-08-4/BI OR
26680-10-4/BI OR 26780-50-7/BI OR 29223-92-5/BI OR
3079-28-5/BI OR 31621-87-1/BI OR 31135-50-1/BI OR 38396-39-
3/BI OR 4740-78-7/BI OR 52305-30-3/BI OR 5464-28-8/BI OR
56-81-5/BI OR 57-11-4/BI OR 57-55-6/BI OR 59227-89-3/BI OR
60-01-5/BI OR 616-45-5/BI OR 67-68-5/BI OR 68-12-2/BI OR
75-21-8/BI OR 75-56-9/BI OR 77-89-4/BI OR 77-90-7/BI OR
77-93-0/BI OR 77-94-1/BI OR 78-40-0/BI OR 78-93-3/BI OR
78644-42-5/BI OR 79-20-9/BI OR 84-66-2/BI OR 87-91-2/BI OR
872-50-4/BI OR 9002-72-6/BI OR 9003-29-6/BI OR 9003-39-8/BI
OR 9004-34-6/BI OR 9012-76-4/BI OR 96-48-0/BI OR 96-49-1/B
1 OR 97-64-3/BI)

L3 R DL-LACTIDE-GLYCOLIDE/CN
1 SEA ABB=ON PLU=ON "DL-LACTIDE-GLYCOLIDE COPOLYMER"/CN
L4 4 SEA ABB=ON PLU=ON DL-LACTIDE-GLYCOLID?/CN
L5 3 SEA ABB=ON PLU=ON L4 NOT L3
L6 3 SEA ABB=ON PLU=ON L2 AND ALCOH?

L7 E BENZYL ALCOHOL/CN
1 SEA ABB=ON PLU=ON "BENZYL ALCOHOL"/CN
L8 0 SEA ABB=ON PLU=ON L3 AND MEDLINE/LC
L9 1 SEA ABB=ON PLU=ON L3 AND BIOSIS/LC
L10 1 SEA ABB=ON PLU=ON L3 AND EMBASE/LC
L11 1 SEA ABB=ON PLU=ON L3 AND DRUGU/LC
L12 1 SEA ABB=ON PLU=ON L7 AND EMBASE/LC
L13 1 SEA ABB=ON PLU=ON L7 AND BIOSIS/LC
L14 1 SEA ABB=ON PLU=ON L7 AND DRUGU/LC

L15 FILE 'HCAPLUS' ENTERED AT 09:32:27 ON 29 JAN 2007
4184 SEA ABB=ON PLU=ON L3
L16 24290 SEA ABB=ON PLU=ON L7
L17 40 SEA ABB=ON PLU=ON L15 AND L16
L18 QUE ABB=ON PLU=ON HUMAN(A)GROWTH(A)HORMON? OR HGH OR
GROWTH(A)HORMON?
L19 5 SEA ABB=ON PLU=ON L17 AND L18
E GROWTH HORMONE/CT
L20 34757 SEA ABB=ON PLU=ON "GROWTH HORMONE"+PFT,NT/CT
L21 6 SEA ABB=ON PLU=ON L17 AND L20
E HUMAN GROWTH HORMONE/CT
L22 1453 SEA ABB=ON PLU=ON "HUMAN GROWTH HORMONE"+PFT,NT/CT
L23 2 SEA ABB=ON PLU=ON L17 AND L22
L24 118 SEA ABB=ON PLU=ON L15 AND L18
L25 90 SEA ABB=ON PLU=ON L15 AND L20

129

L26 34 SEA ABB=ON PLU=ON L15 AND L22
L27 119 SEA ABB=ON PLU=ON L25 OR L26
L28 111 SEA ABB=ON PLU=ON L27 AND THU/RL
L29 31 SEA ABB=ON PLU=ON L28 AND ALCOH?
E INJECT/CT
L30 20375 SEA ABB=ON PLU=ON "INJECTABLE DRUG DELIVERY SYSTEMS"+PFT,
NT/CT
L31 8 SEA ABB=ON PLU=ON L17 AND L30
L32 8 SEA ABB=ON PLU=ON L15 AND L31
E DRUG DELIVERY SYSTEM/CT
L33 224749 SEA ABB=ON PLU=ON "DRUG DELIVERY SYSTEMS"+PFT,NT/CT
L34 34 SEA ABB=ON PLU=ON L17 AND L33
L35 34 SEA ABB=ON PLU=ON L19 OR L21 OR L23 OR L31 OR L32 OR L34
L36 32 SEA ABB=ON PLU=ON L35 AND BENZYL(W)ALCOH?
L37 34 SEA ABB=ON PLU=ON L35 OR L36
L38 5 SEA ABB=ON PLU=ON L37 AND L18
L39 34 SEA ABB=ON PLU=ON L37 OR L38
L40 2778 SEA ABB=ON PLU=ON L15 AND L33
L41 2503 SEA ABB=ON PLU=ON L40 AND THU/RL
L42 125710 SEA ABB=ON PLU=ON L6
L43 67 SEA ABB=ON PLU=ON L41 AND L42
L44 QUE ABB=ON PLU=ON BIOERODIBL? OR BIOCOMPATIBL? OR
BIODEGRAD? OR BIO(W) (ERODIBL? OR COMPATIBL? OR DEGRADABL?)
L45 27 SEA ABB=ON PLU=ON L43 AND L44
L46 18 SEA ABB=ON PLU=ON L39 AND L44
L47 59 SEA ABB=ON PLU=ON L39 OR L45 OR L46
L48 35 SEA ABB=ON PLU=ON L47 AND (1840-2002)/PRY,PY,AY
L49 QUE ABB=ON PLU=ON PLG OR PDLG OR PLGA OR RESOMER? OR
MDTBOBB?
L50 68 SEA ABB=ON PLU=ON L49 AND L18
L51 1 SEA ABB=ON PLU=ON L50 AND L16
L52 42 SEA ABB=ON PLU=ON L50 AND L15
L53 1 SEA ABB=ON PLU=ON L52 AND L16

FILE 'HCAPLUS' ENTERED AT 10:17:21 ON 29 JAN 2007
L54 35 SEA ABB=ON PLU=ON L48 OR L53
L55 15103 SEA ABB=ON PLU=ON CHEN, G7/AU
L56 333 SEA ABB=ON PLU=ON HOUSTON, P7/AU
L57 111 SEA ABB=ON PLU=ON KLEINER, L7/AU
L58 4401 SEA ABB=ON PLU=ON WRIGHT, J7/AU
L59 32 SEA ABB=ON PLU=ON (L55 OR L56 OR L57 OR L58) AND L15
L60 7 SEA ABB=ON PLU=ON L59 AND L16
L61 31 SEA ABB=ON PLU=ON L54 NOT L60

FILE 'EMBASE' ENTERED AT 10:19:51 ON 29 JAN 2007
L62 4395 SEA ABB=ON PLU=ON L10
L63 1770 SEA ABB=ON PLU=ON L12
L64 6 SEA ABB=ON PLU=ON L62 AND L63
L65 2953 SEA ABB=ON PLU=ON CHEN, G7/AU
L66 58 SEA ABB=ON PLU=ON HOUSTON, P7/AU
L67 6 SEA ABB=ON PLU=ON KLEINER, L7/AU
L68 3917 SEA ABB=ON PLU=ON WRIGHT, J7/AU
L69 19 SEA ABB=ON PLU=ON (L65 OR L66 OR L67 OR L68) AND L62
L70 0 SEA ABB=ON PLU=ON L69 AND L63
E DRUG DELIVERY SYSTEM/CT
L71 79171 SEA ABB=ON PLU=ON "DRUG DELIVERY SYSTEM"+PFT,NT/CT
L72 4 SEA ABB=ON PLU=ON L69 AND L71
L73 6 SEA ABB=ON PLU=ON L64 NOT L72

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10/628.984

FILE 'BIOSIS' ENTERED AT 10:21:54 ON 29 JAN 2007

L74 831 SEA ABB=ON PLU=ON L9
L75 1076 SEA ABB=ON PLU=ON L13
L76 0 SEA ABB=ON PLU=ON L74 AND L75
L77 20 SEA ABB=ON PLU=ON L74 AND ALCOH?
E DRUG DELIVERY SYSTEM/CT
L78 526 SEA ABB=ON PLU=ON "DRUG DELIVERY SYSTEM"+PFT,NT/CT
L79 1 SEA ABB=ON PLU=ON L77 AND L78
L80 4052 SEA ABB=ON PLU=ON CHEN, G7/AU
L81 69 SEA ABB=ON PLU=ON HOUSTON, P7/AU
L82 12 SEA ABB=ON PLU=ON KLEINER, L7/AU
L83 5489 SEA ABB=ON PLU=ON WRIGHT, J7/AU
L84 3 SEA ABB=ON PLU=ON (L80 OR L81 OR L82 OR L83) AND L74
L85 1 SEA ABB=ON PLU=ON L79 NOT L84

FILE 'DRUGU' ENTERED AT 10:24:07 ON 29 JAN 2007

L86 1 SEA ABB=ON PLU=ON L11
L87 141 SEA ABB=ON PLU=ON L14
L88 0 SEA ABB=ON PLU=ON L86 AND L87
L89 388 SEA ABB=ON PLU=ON CHEN, G7/AU
L90 6 SEA ABB=ON PLU=ON HOUSTON, P7/AU
L91 602 SEA ABB=ON PLU=ON WRIGHT, J7/AU
L92 2 SEA ABB=ON PLU=ON KLEINER, L7/AU
L93 0 SEA ABB=ON PLU=ON (L89 OR L90 OR L91 OR L92) AND L86

FILE 'MEDLINE, LIFESCI, SCISEARCH, WPIX, JAPIO, JICST-SPLUS' ENTERED

AT 10:25:46 ON 29 JAN 2007
L94 17635 SEA ABB=ON PLU=ON CHEN, G7/AU
L95 457 SEA ABB=ON PLU=ON HOUSTON, P7/AU
L96 14372 SEA ABB=ON PLU=ON WRIGHT, J7/AU
L97 110 SEA ABB=ON PLU=ON KLEINER, L7/AU
L98 32 SEA ABB=ON PLU=ON (L94 OR L95 OR L96 OR L97) AND
LACTID?(4A) GLYCOLID?
L99 8 SEA ABB=ON PLU=ON L98 AND BENZYL(W) ALCOHOL?

FILE 'HCAPLUS, EMBASE, BIOSIS' ENTERED AT 10:29:29 ON 29 JAN 2007

L100 38 DUP REM L61 L73 L85 L88 (0 DUPLICATES REMOVED)
ANSWERS '1-31' FROM FILE HCAPLUS
ANSWERS '32-37' FROM FILE EMBASE
ANSWER '38' FROM FILE BIOSIS

FILE 'HCAPLUS, EMBASE, BIOSIS, WPIX' ENTERED AT 10:31:32 ON 29 JAN
2007

L101 16 DUP REM L60 L72 L84 L93 L99 (6 DUPLICATES REMOVED)
ANSWERS '1-7' FROM FILE HCAPLUS
ANSWERS '8-11' FROM FILE EMBASE
ANSWERS '12-13' FROM FILE BIOSIS
ANSWERS '14-16' FROM FILE WPIX

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